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Michigan, Wisconsin, Nebraska and Oklahoma Hardware Convention Reports in This Issue.

AMERICAN ARTISAN and Hardware Record

VOL. 85. No. 6. 620 SOUTH MICHIGAN AVENUE, CHICAGO, FEBRUARY 10, 1923. $2.00 Per Year.

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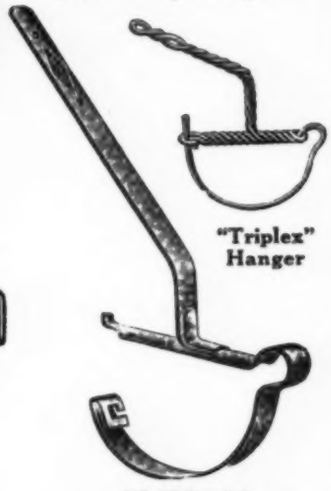
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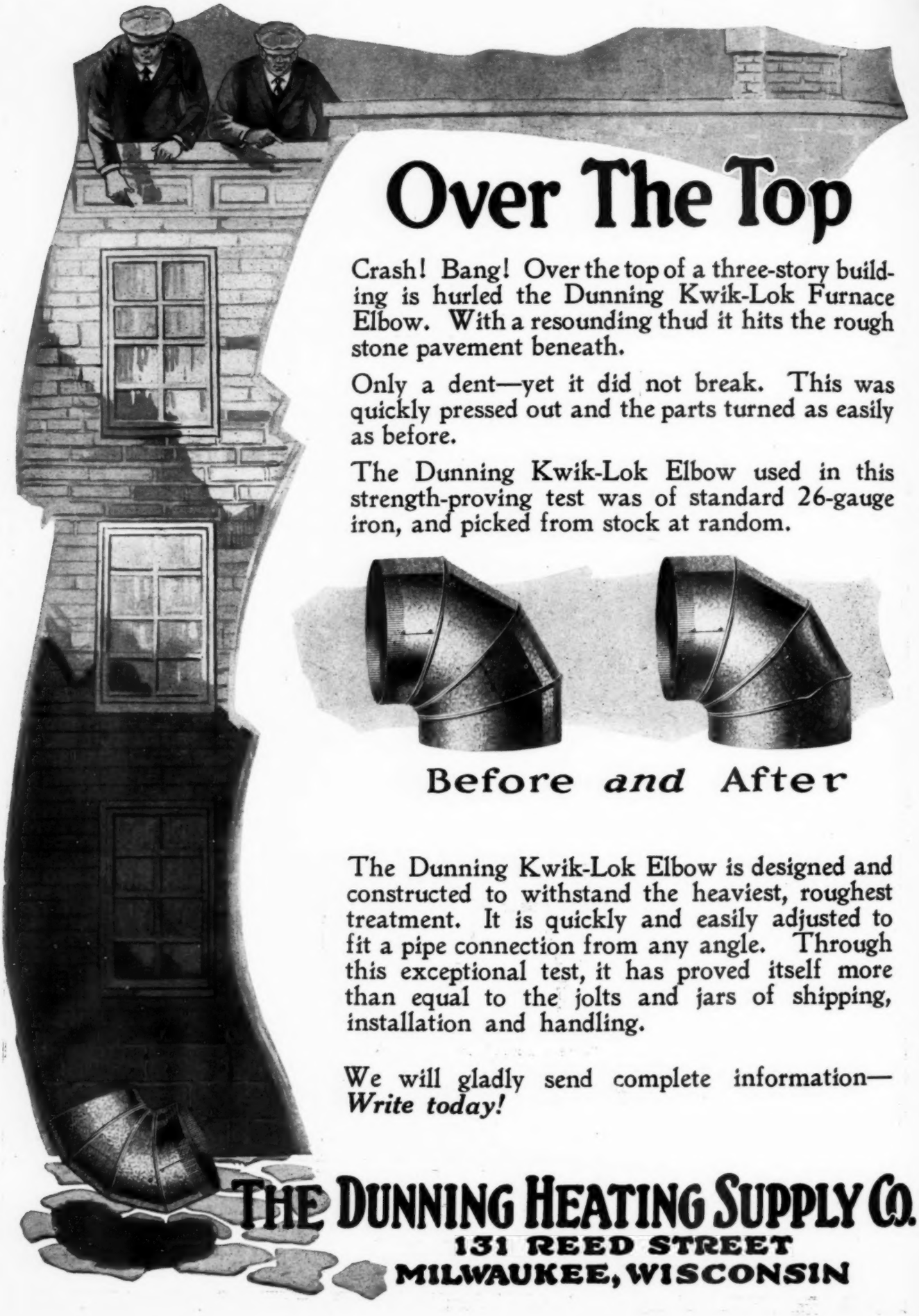
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Crash! Bang! Over the top of a three-story building is hurled the Dunning Kwik-Lok Furnace Elbow. With a resounding thud it hits the rough stone pavement beneath.

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AMERICAN ARTISAN and Hardware Record

Address all communications and remittances to AMERICAN ARTISAN AND HARDWARE RECORD 620 South Michigan Avenue CHICAGO, ILLINOIS

PUBLISHED EVERY SATURDAY BY THE ESTATE OF DANIEL STERN

Eastern Representatives: C. C. Blodgett and W. C. White, 1478 Broadway, New York City

Yearly Subscription Price: United States $2.00: Canada $3.00: Foreign $4.00

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879

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VOL. 85. No. 6. CHICAGO, FEBRUARY 10, 1923. $2.00 Per Year.

WILL PEOPLE EAT MORE BREAD BECAUSE IT IS SOLD AT A LOSS?

Two of the chains of grocery stores which infest Chicago and its suburbs have engaged in a bread war.

Last Thursday one of them advertised a full 16-ounce loaf of "milk bread" for four cents; the other followed with an offer at 3½ cents; number one "saw that" and "raised them" with another half cent reduction, and during the next days the game kept on until on Tuesday the price was made two cents.

On Wednesday the newcomer gave a loaf away, free of charge, with every purchase of five cents or over.

Anybody knows that a pound loaf of bread cannot be baked at two or three cents, to say nothing about being sold at a fair profit, and it seems strange that concerns of the size of these two—with millions of dollars in capital—should indulge in cut-throat competition of this crude form.

It is safe to say that neither of the two chains will bake, or have baked for it, one more loaf than would be sold at the regular price. They don't want to sell more loaves at a loss, and people who are in the habit of patronizing "cash-and-carry" stores will not eat any more bread than if each loaf were sold at five cents. Their object is, of course, to attract new trade and possibly also to draw trade away from their principal competitor.

Suppose the one who has the last word in this silly contest does manages to pull a hundred new customers in, what is likely to happen?

This is exactly what did happen! Many of those who came late in the day failed to get any bread at all, because those who had preceded them had exhausted the supply.

What was the state of mind of these disappointed customers?

Surely not one of satisfaction. They felt that they had been drawn into the store under false pretenses, and instead of having gained a number of possible steady customers for goods on which the store would make money it actually had caused these prospects to say to themselves, "Never again."

Price-cutting contests benefit no one—not even the person who takes advantage of the cut prices—because in most cases there is always a "back wash" to such things, in the shape of poorer quality than the buyer has been led to expect.

And such breaks from the legitimate merchandising methods always demoralize the market, all the merchants on the side-lines suffering a temporary loss.

Sell your merchandise and your service at prices that will yield you a fair profit on your investment.

Piracy is no more jutifiable in campaigning for business than it is on the seas.

* * *

During 1922, American Artisan devoted more space to the publication of practical articles on mechanical ventilation than any trade paper.

Random Notes and Sketches.

By Sidney Arnold

"Judge" Grosscup, of the Anchor Brand clothes wringer folks, was going down to Erie recently to tell the factory boys how to make the wringers easier to sell. He had made up his mind rather suddenly and the only lower berth the ticket agent could give him bore the number which is usually classed as unlucky.

Nothing daunted, however, the "Judge" had it reserved, and after a good dinner and a smoke told "George" to make up his berth, which having been done, he retired.

About midnight he heard an argument between two passengers who had evidently just boarded the train, and the porter, as to the numbers of their berths, but paid little attention to what was said.

Toward morning, he woke up and, wanting a drink, he rang for the porter but received no reply, and finally got out, had his drink and returned to what he thought was his berth, but found that a big fat man was occupying the space behind curtain number 13.

"Here, you, what are you doing in my berth?" exclaimed the "Judge."

"Go about your business, young man, or there will be trouble," was the reply, "I have been trying to go to sleep in this berth since midnight, and just as I was dozing off you came and woke me up."

"But you are in my berth," said Grosscup. "I can prove it. You must have been walking in your sleep. Better get out and find your own berth."

"Nothing doing. This is where I went to bed, and here are all my clothes. That ought to prove it to you."

By this time, the car was in an uproar, and finally the conductor showed up.

"What is the trouble here?"

"Only that this man is trying to keep me from getting into my berth. He claims he has been in it since midnight, and I know better, for I just got out of it five or ten minutes ago to get a drink of water."

"Nothing to it at all, conductor," yelled the fat man. "This boob is trying to put something over. I'll bet he is a crook, and you'd better take him in charge and have him arrested at the next stop."

"Well, that is really too bad," said the conductor. "I remember now that the porter told me that he had gotten the curtains of number eleven and thirteen mixed. It was late when this gentleman got on and I thought it would be all right to leave them as they were. The porter got sick and was taken off the train a ways back, and I forgot all about the mix-up. Your berth, sir," turning to the "Judge, "is the one with number eleven on the curtain."

Charlie Meacham who vouches for the truth of this story tells me that Grosscup is inclined to be dubious now even about walking under a ladder.

* * *

Pride of authorship is a weakness we all admit—we who eat to live, or live to eat, by printer's ink. Wherefor the Editor of AMERICAN ARTISAN—modest soul—has suggested that I might make mention of the fact that *ZN*, the pungent monthly booklet published by the American Zinc Institute, has an unusual feature in its January number.

Its back cover is a reproduction of the editorial page of AMERICAN ARTISAN, December 9 issue!

You may remember the editorial —"Make It of Sheet Metal!"—in which the examples of the combined efforts of the copper and zinc industries, respectively, were cited to show the terne plate and galvanized roofing manufacturers what might be done in a co-operative publicity campaign to go after the roofing business.

Speaking of roofing, the same issue of this publication quotes AMERICAN ARTISAN of December 30, in its article on the Indianapolis fire protection campaign against wooden shingles.

* * *

Among my visitors this week were L. G. Colburn and W. T. Somers, Salesmanager and Superintendent respectively of the Success Heater & Manufacturing Company.

Colburn was "sore" when he came in—not at me but at the barber whose shop he had just left after a somewhat unsatisfactory "shave."

The barber had charged him fifty cents, and Somers in telling about it repeated the following conversation:

The Victim: "Fifty cents for that massacre you called a shave? Why, consarn it, you sliced my face five times into the deal!"

The Victimizer: "Cert'nly, sir—a dime a slice. This is no cut-rate shop."

* * *

I am rather wondering what would have happened if the same thing had happened to some of my good friends among the woman haters in the Chicago Hardware Club that occurred in the following story:

A dignified Philadelphian had advertised for a stenographer. Among the numerous applicants for the position was a beautiful, statuesque blonde who had recently arrived from New York. Her business-like manner so pleasingly impressed the merchant that he straightway engaged her at a liberal salary. On the morning of her first appearance she went to her employer.

"I presume," she remarked, "that you begin the day over here much the same as they do in New York?"

"Oh, yes," rejoined the employer, still perusing a letter he was reading.

"Well, hurry up and kiss me, then, I want to get to work," came the startling reply.

Merchandise Furnaces with Modern Methods as Other Goods Are Sold and Turnover and Good Profits Result.

Use Store Windows, Special Displays and Similar Proven Devices, Say Experts in Selling Ranges and Heaters.

NOW that we're well started on 1923, with a clarion note of prosperity from manufacturer to dealer ringing in our ears, let us focus our attention on the retail merchandising of furnaces. Attention, merchants and dealers, and particularly hardware merchants, and take heed, lest the profits that ought to be yours elude you.

For, during the past two years, the question of merchandising furnaces has probably been given more serious thought by the salesmen than ever before, because the day of the "order taker" is passed and now it is up to the salesman to *sell*. This applies to everybody who has a hand in the sale of the furnace until it is installed in the basement of the home of Mr. Ultimate Consumer.

A fine definition of the responsibilities of the furnace manufacturer to the dealer is supplied by James A. Watson, well-known furnace salesman, who declares that to sell the merchant a stock of furnaces is not the end of the transaction; it is just the beginning of it. Mr. Watson explains this obligation on the part of the maker in detail, giving definitions of the five salient points in furnace merchandising as follows:

"To sell the merchant a stock of furnaces is not the end of the transaction; it is just the beginning of it. To show the merchant how to merchandise the goods is the next step, because of the fact in the past very few hardware merchants handled furnaces and very few of them know how best they can be marketed. The salesman who calls on the dealer, paints a wonderful picture of the possibilities of the furnace field, gets an order and leaves, not only kills the possibility of future business from that dealer, creates a bad taste in the mouth of the dealer, displays the fact that he, the salesman, is a salesman in name only, but he injures the furnace business for everyone.

"I find many hardware dealers display but little interest in the furnace business because they consider the profit too small; the line hard to turn over; the field too limited; because of past unsatisfactory results with a poor furnace or an unscrupulous salesman, etc. Let's go into the situation carefully. First of all, let's take the profit. There are thousands of articles handled by the hardware dealer on which the profit is smaller in proportion, the demand not so great, and the stock harder to turn over. Many merchants figure profits individually. One of America's largest corporations today works on the principle that "small profits often repeated are more valuable than a few large individual profits," and certainly this system will prove a better advertiser.

"The majority of the merchants don't realize that a volume business on furnaces can be had, and therefore consider the business unattractive. The majority of the merchants who have handled furnaces and found it unsatisfactory can not attribute their lack of success to the furnace, but rather to their methods of merchandising. When the automobile first came into the limelight, the question of representation came up. The manufacturers soon recognized the fact that a new source of representation would be necessary as aggressive methods were required to market automobiles.

"The automobile dealer was developed and aggressive merchandising plans put in effect. Result, today the automobile industry is one of the greatest in the country. If the hardware dealer handles furnaces along aggressive lines, the furnace business will soon prove one of his best assets. A volume of business will be developed, and his business on all lines increased as a result. Let's discuss the method of merchandising.

"First—Display. What is a bet-



Furnace Display of A. Baldwin & Company, New Orleans, Louisiana, Illustrating Manufacturer's Cooperation.



Furnace Displayed in Front of Store of Otto Rood Hardware Company, Minneapolis, Minnesota.

ter advertisement for any line than a good display? Next to a corking good salesman, an attractive display is one of the merchant's best assets. How often do you see a furnace attractively displayed? Yet it can be done, and the display attract favorable attention. Any article well displayed will create sales, and in any event, inquiries, and that is what you want. Give the furnace room on the floor in the store, paint it up, use attractive store cards, etc. Make the furnace a silent salesman.

"Second—Prospects. Who are prospects for furnaces? Everyone who owns a home and has no modern type of heating equipment is a prospect. Churches, schools, stores, lodges, etc., are prospects. Go after them! There are thousands of people who would be interested in furnaces and buy them if they knew what the furnace meant to the home; if they knew where it could be had; that it was an honest product; that it had the guarantee of the dealer and the manufacturer; that it saved in fuel enough money to pay for the furnace; that better heated rooms meant protection against sickness, etc. Let them know you handle furnaces; that you guarantee them to be satisfactory; what it means to the home. Advertise it in the papers; send out prospect letters to home owners, school boards, lodge members, etc., periodically; put your furnace where it can be seen; during the proper season display it in the show windows—above all, keep the fact you are a furnace dealer eternally before the public. Publicity is the life of any business, and furnaces come under that heading.

"Third—A Salesman. What is a salesman? Is he merely a smooth talker? A salesman, first of all, is a man who knows his line; if he is a smooth talker, too, that is another asset in the salesman's favor. However, to do a good business, and keep on doing it, he must know his line. Designate one man in your force as a furnace salesman and let him concentrate on that line; if possible have him factory trained; have the salesman representing the manufacturer work with him and coach him; have him study the furnace itself. Would you buy an automobile from a salesman who couldn't tell you whether it was four or six-cylinder, or some other simple question you might ask? The same thing is true with the furnace, and believe me, some folks can ask questions, too.

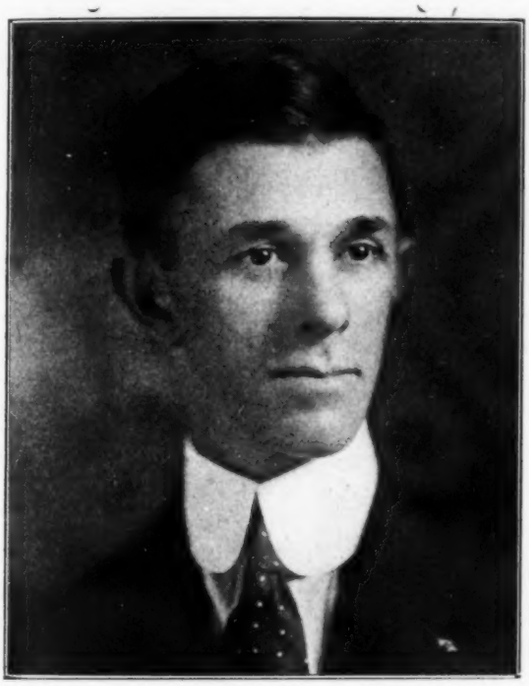
"Fourth — Co-operation from Manufacturer. Tie into the manufacturer who has real co-operation



Both Front Windows of Jones Hardware Company, Greenville, South Carolina, Employed to Sell Stoves and Furnaces.

to give you. It reduces your sales resistance; develops business, and strengthens the bond between dealer and manufacturer. By real co-operation from the manufacturer I mean one who will spend real United States money with you on advertising; who helps you build up your business; who will send in his representative to work with you and your force for a few weeks each year.

"Fifth—The Line Itself. This is an important part of merchandising. Which is the most profitable line for you? The one which enables you to do a big business for a few months or years, and then has to be put out because of the failure of the furnace to function over a period of years, and on which the adjustments eat up the profit; or the line which goes good at the start, and keeps right on going good as long as you handle it and push it, and on which the adjustments are so few and far between as to be an insignificant item?"



George B. Haile.



James A. Watson.

Furnaces are salable all the year, observes George B. Haile, Cookeville, Tennessee, another well-known furnace salesman. Mr. Haile makes these arguments as to why the hardware merchant should add furnaces to his line, or push this department for profits:

In furnaces there are no odds and ends nor hard stock to be sacrificed.

They are salable in the cities, small towns and rural sections, and can be merchandised the year round.

The business is of a lasting duration and a vital household necessity.

They have both volume and profit.

In the sale of furnaces it is advantageous that the dealer selects a line that is made by well-known manufacturers, having a reputation for building good merchandise, that are and have in the past been national advertisers; and in this connection it is of vital importance that the dealer hook up local newspaper campaigns in connection with the national advertising campaigns that are conducted from time to time by the manufacturers. For, by doing so he adds prestige that presages favorable consideration from his respective locality. It has been said, "the newspapers are the streets that run through the human mind," and the dealer should be there often, and occupy a prominent position.

Special sale campaigns should be put on at which factory representatives assist in explaining the merits of the system, not only to prospective customers, but to the *dealer and his entire sales force,* so that at any time they are in position to intelligently talk and explain the workings of the system in detail.

Again, these campaigns should be preceded by an accurate, local newspaper campaign, copy of which expert advertising men at factory will gladly prepare and furnish the dealer. Also valuable publicity may be had by means of attractive circulars or handbills, and descriptive booklets, which are liberally supplied by the manufacturer.

The dealer should use the factory engineering service where expert heating engineers will prepare blue prints, showing fully where furnaces should be located; size required, and how to properly install.

Attractive window displays should be made from time to time, compelling the buying public to know that the dealer is prepared to render them service in this particular line. Also furnaces should be displayed in a prominent place on his sales floor.

Again, the dealer will find an invaluable aid in keeping a complete list of all furnace prospects, forwarding copy of every prospect to the factory, where they can be followed up with short, snappy letters,

direct from the manufacturer, from time to time.

It is an asset to any dealer's business to be connected with nationally known and nationally advertised trademarked merchandise. Manufacturers have spent, and are spending, hundreds of thousands of dollars yearly to create a favorable impression in the minds of the buying public of their merchandise. Many have spent years of hard, constructive labor building good merchandise, thereby creating a consumer's acceptance that makes it worth while to the dealer to be connected with such lines of merchandise.

So far these merchandising suggestions have come from furnace salesmen. Let us now turn to some notable instances of furnace merchandising on the part of the merchants.

First, take the display of the Churchill Hardware Company, Galesburg, Illinois, which is reproduced in this article. It will be noted that this firm keeps a fine display in stock, and has it well displayed. It is a profit-making department, according to G. B. Churchill of this concern, who makes this unique comment:

"At the present time we are behind in this department. There is no one line that we handle, where there is as much and as strong competition, as in the tin work and heating business. Yet, this department has showed a very nice profit, all things considered. We have thought for years that we would close this shop entirely and quit the outside work, but each year we find that it is a source of good income, so we have continued it from year to year."

A striking example of what may be done to attract attention to stoves and furnaces is illustrated in the window display of the Jones Hardware Company, Greenville, S. C., the window on the left being used exclusively to show one furnace and the window to the right being reserved to show a range and also a heater. This store with its very modern front knows also the value of a modern window trim, as the elegance and simplicity of these windows attest. Note the trellis effect and the use of flowers and palms.

The furnace display of A. Baldwin & Company, merchants of New Orleans, Louisiana, illustrates a full measure of manufacturer's cooperation. The display, as illustrated herewith, shows a manufacturer's agent explaining the good points of the furnace to a woman prospect. Charts and dealer's helps panel the walls. A fire pot and register are placed in the foreground for detailed explanation.

The Otto Rood Hardware Company of Minneapolis believe in "going after the customer." Their deep doorway permitted their placing a furnace in front of the store, where it could not help but catch the eye of the passerby. It did, and additional furnace sales resulted.



Excellent Display of Furnace Stock and Sheet Metal Department of Churchill Hardware Company, Galesburg, Illinois.

Who Makes "Supreme" Vapor Oil Burner?

To AMERICAN ARTISAN AND HARDWARE RECORD:

Can you tell me who makes the Supreme Vapor oil Burner for stoves and furnaces?

C L. EPPS.

———, Ohio.

Announcing a Series of Intensely Interesting and Instructive Discussions on Warm Air Furnace Work.

The Discussions Were Conducted by L. W. Millis, Secretary of the Security Stove Manufacturing Company, Kansas City, Mo.

ABOUT two years ago Professor Willard, of the University of Illinois, at the close of a talk before the Sheet Metal Contractors' National Convention at Peoria, Illinois, concerning correct details of furnace work, asked how those present expected to convey such information to the man in the field who is doing the actual work.

If any move has been made toward that end, Mr. L. W. Millis, Secretary of the Security Stove & Manufacturing Company, Kansas City, Missouri, failed to hear of it, and after waiting a year or more decided that, so far as his furnace men were concerned, he would undertake it himself.

Accordingly, during the past year he has held bi-monthly meetings of the Security Stove & Manufacturing Company Warm Air Study Club, which is composed of their furnace setters, helpers and city salesmen.

At each meeting a prepared paper was read and a discussion indulged in. The discussion for each evening was confined as nearly as possible, to the subject of that evening.

Mr. Millis says that while the preparation of the papers proved to be a big job for an already busy man, the results of the meetings justified the labor and time. The attendance ranged from thirty to forty men, and the discussions have become extremely interesting and profitable.

Mr. Millis further reports that many a furnace helper, who at first regarded his work as first promotion from helper to a chimney sweep, and as a very temporary means of making a living, has come to regard furnace work as one of the most exacting and honorable means of serving mankind, and that any man who succeeds in doing so, may feel as much self-respect as any class of high grade men in the world.

Mr. Millis recognized that our trade papers are full of methods for determining the correct proportions of warm air heating plants and therefore took up other things in more detail than is usually found in the trade paper articles. The following are some of the subjects handled:

Dust.
Combustion and the Chimneys.
The Furnace and the Chimney.
Chimney Draft.
Measurement and Insulation of Heat.
Proportions of Air Supply.
Does Rising Warm Air Suck Cold Air to a Furnace?
Eternal Vigilance in Furnace Work.
Coal and Combustion.
Clinkers.
Destruction of Iron by Heat.

The discussions revealed isolated bits of unusual information, which of course, became the common knowledge of all.

Through Secretary Allen W. Williams, of the National Warm Air & Ventilating Association, AMERICAN ARTISAN heard of the work and has induced Mr. Millis to allow some of the papers and discussions to be printed, in the hope that the furnace workers throughout the country may have an opportunity to apply to their daily work the petty details that will make warm air take first place over all other methods of heating.

In a near issue we shall present Mr. Millis' paper on "Dust," and the club's comments on it.

St. Louis Technical Institute Features Special Heating and Ventilating Course.

The St. Louis Technical Institute, whose principal, Mr. O. W. Kothe, is a regular contributor to AMERICAN ARTISAN, in a prospectus just issued, outlines its program of sheet metal studies, tinning and plumbing and heating and ventilating engineering. In its synopsis of this last named course, the prospectus says:

In late years, the matter of heat and ventilating has become more and more scientific, until now it is really a very great engineering industry.

The clamor for comfort, even heat, ample fresh air, and practical ventilation has made this profession a very broad one. A very thorough training is required in it to be an able authority. Numerous tradesmen as sheet metal indirect ventilating men and steam fitters have often questioned us for such a course.

We have made very thorough researches and have taken up a very exhaustive study on the subject. It is a full line of engineering knowledge and a "finished study." We discourage men who want to take "short" courses which only cover the high spots, and when finished a person seldom knows much more than when he started.

Steam fitters and hot water heater men, also indirect heating and ventilating sheet metal men, also draftsmen in the above lines will make good engineers. They have much practical understanding and all they need to study is the technical construction and practical designing.

The day is fast coming when every heating and ventilating shop—whether doing steam fitting or sheet metal duct installation—must have

a trained heating engineer. In fact, all large shop proprietors are engineers, or employ one. This shows the necessity of every tradesman entering this great field of business to be competent engineers and not merely figureheads.

Change in Pipe Take-Off on Furnace Bonnet Improved Heating.

During the past couple of months we have published a number of letters from installers referring to the question as to whether it is best to take the heating pipe off the side of the bonnet or to start it from the top.

In the following, E. C. Gates, Casper, Wyoming, shows how he changed a badly working furnace into a satisfactory one by making a seemingly unimportant alteration in the "take-off."

To AMERICAN ARTISAN:

I notice that there has been quite a dispute in recent issues of AMERICAN ARTISAN as to the best way of running heating pipes off the bonnet.

In my opinion, the method of taking the pipe off the top of the bonlost into the basement and the more net is the better, because it gives you more head room around the furnace and gives the air a better—and the quicker you get the air into the wall stacks, the less heat will be will be sent to the rooms above where you want it.

The illustration herewith shows an installation that I had trouble with. I used both methods, as shown in the cut, because I was crowded for head room around the furnace.

There were four pipes like B and two like A. The B pipes had ½ inch elevation per foot, while the A pipes had 1 inch per foot, and to my surprise the A pipes acted as cold air ducts.

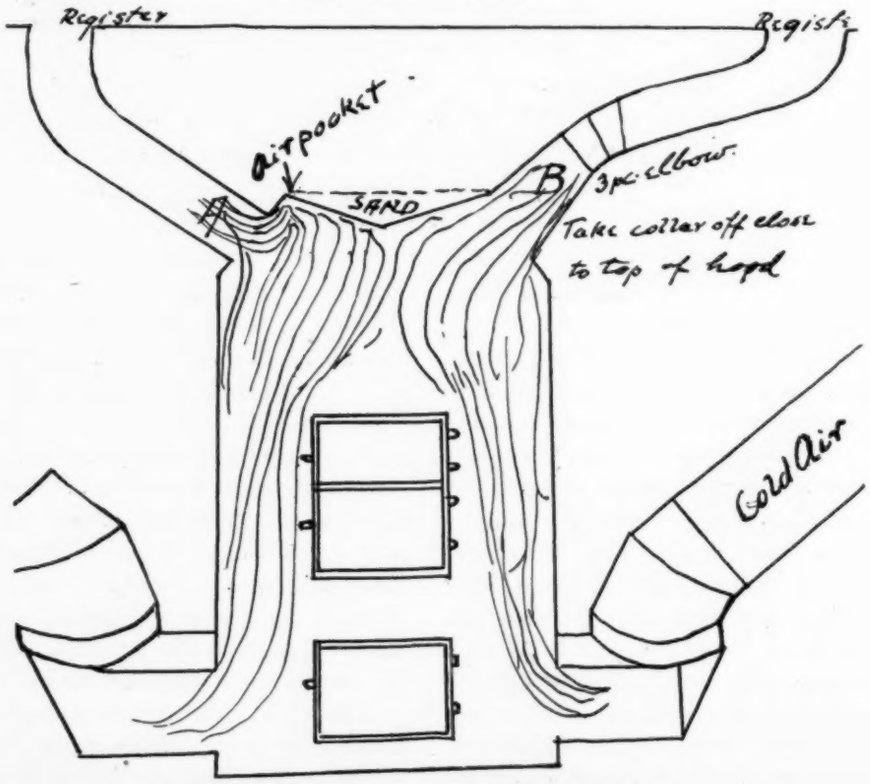
By investigation I found that air pockets formed in the corner between the top of the bonnet and the opening for the pipes.

When I changed the two A pipes to match the B pipes, there was no trouble whatever—every pipe gave plenty of warm air into the stacks.

I like to read these discussions. We can all learn from the other fellow's experience.

E. C. GATES.

Casper, Wyoming, February 1, 1923.



Shows How Furnace Was Made to Work Right.

New Victor Furnace with Intercepting Heat Conveyors Saves 20 Per Cent of Fuel.

After several years' experimentation the Hall-Neal Furnace Company announce the perfection of the new "Victor Steel Furnace' with patented intercepting heat conveyors, for which it is claimed, by reason of its even and proper radiation of heat, a saving of 20 per cent in fuel is made.

The company believes the new furnace a great forward step in



New Victor Furnace.

furnace construction and in their publicity matter the following are among the principal claims:

The conveyors intensify the heat circulation and insure a positive flow of heat to each register, maintaining uniformity of temperature throughout the house. No heat is wasted in the basement by radiation through the casing. There is no radiator to clean and all radiator troubles are eliminated.

M. McNutt of Cleveland Joins City Stove and Furnace Company

Announcement has been made to the trade and the Cleveland public by M. McNutt, formerly of the McNutt Furnace Company, of his having been placed in charge of the furnace and sheet metal department of the City Stove and Furnace Company, 226-30 High Avenue, Cleveland. The firm has been in business in Cleveland more than 40 years.

Practical Helps and Patterns for the Tinsmith.

Aids to the Improvement of Craftsmanship and Business. News from Various Branches of the Sheet Metal Trade.

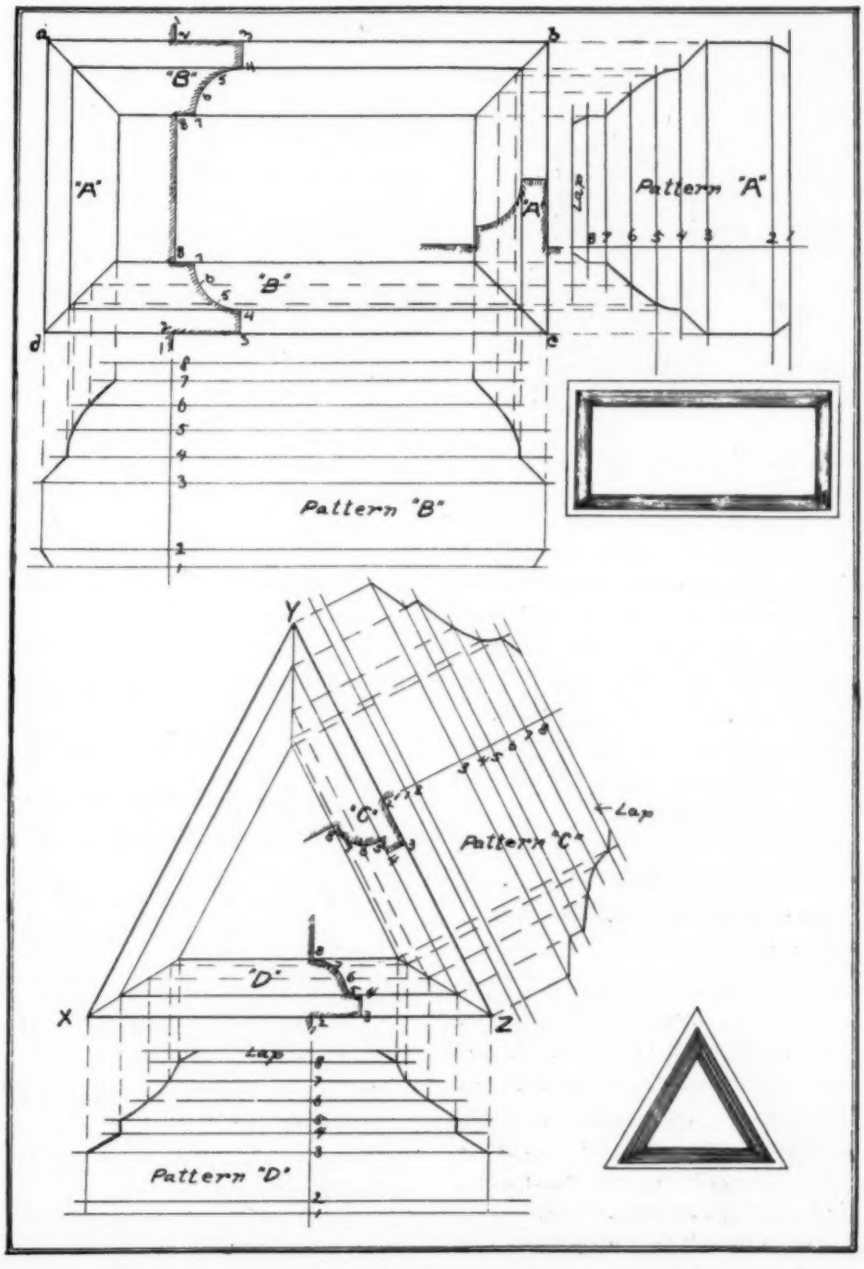
Patterns for Panel Miters.

By O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri. Written especially for American Artisan and Hardware Record.

In the making of picture frames, frames for mirrors and panels for frieze in a cornice, and many other positions, the face miter must be used. In our upper sketch of drawing we show a rectangular panel that has a sectional view as at "A" and "B." The outlines of panel are drawn to any size desired and the detail of moulding is set in making the moulding whatever you feel you want to make or to specify. Then divide all curved lines in equal spaces and number each point and bend. From these points draw lines parallel both ways until they intersect the miter line. These miter lines are all drawn on a 45 degree angle, so that a perfect face miter is produced. Observe in many respects these face miters are nothing more than butt miters because each side of the moulding butts against the miter line and in fact most pattern drafting work takes on this treatment.

To set out the pattern for sides, pick the girth from section "E" and set off below as 1 to 8. Draw stretchout lines and then from each point in the miter c and b, drop lines to intersect those in stretchout of similar number. Through these new intersections join lines and the pattern is finished. The same holds good for the end pattern "A," although the end pattern can be marked direct from the side pattern since they are both alike.

Where odd shaped panels are met with as the triangular panel in this case or semi-pentagon panels or other shapes, then the miters will be other than square and the miter lines must then adjust as a bi-section between the angles so that each side of the moulding has an equal cut. This is shown in the working drawing for the lower panel, where Y-X-Z is the outline of panel. On this we draw the section of mould "C." Divide in equal parts and from each point project lines parallel with Y-Z. Now the miter at Y and Z is established by bi-secting so an equal portion is on each side the line. In that case, the section "C" and "D" will be the same and only one is needed. To set out the pattern pick the girth from "C" and set it off on a line 1-8. Draw stretchout lines through these points parallel to Y-Z and then from each point in the miter line Y and Z square over points to intersect lines of similar number. Where these intersections take place join with lines and the pattern is finished. In this case the two upright sides are longer than the base of triangle, but as the



Patterns for Panel Miters.

miters are true bi-sections the pattern "D" can be easily marked from that in "C" and so a second development is not needed. The center triangular panel is merely a flat piece of metal cut to the outline shown. Edges must be bent on the moulds for supporting and assembling purposes.

New Gasolene-Kerosene Soldering Furnace Has Added Features.

A new low-down gasolene-kerosene furnace, with new features which enable it to heat heavy soldering irons and a pot of metal very quickly and doing, it is said, with one needle what other make furnaces require two for, has just been put on the market by Otto Bernz Company, manufacturers, Newark, New Jersey.



In this furnace the burner needle is absolutely blunt and fits into the open channel. Due to this construction there is no orifice to be enlarged. The gasolene burner block is screwed into the burner ready for use. The kerosene burner block is screwed into the filler plug. When kerosene is used it is merely necessary to reverse the burner blocks. Thus, the burner blocks are always handy when required.

New Enlarged Offices Occupied by Copper & Brass Research Association.

The Copper & Brass Research Association have moved their offices to the thirteenth floor of 25 Broadway, New York, where they will have much larger quarters, made necessary by the development of the work done by the organization which is cooperating with sheet metal contractors and others interested in building for permanence, for the purpose of inducing the consuming public to use copper and brass where protection against corrosion is of importance.

1922 Eventful Year in Chicago's Building History.

In the minds of those interested in the building industry of Chicago the year 1922 has been one of the most eventful in its history, says *The Building Construction Employers' Association Monthly Bulletin,* in its review of the year. The year opened with no building going on and everybody praying, urging and begging the public to "build now" and provide thousands of unemployed with needed work and help reduce the housing shortage.

Everybody spread the progaganda. The "Own Your Own Home" show in the early spring gave it a decided boost and the Citizens' Committee for the Enforcement of the Landis Award promised plenty of mechanics and building laborers to help the good cause along.

The eager public, who were on strike themselves against high prices a year ago, apparently all made up their minds at the same time and proceeded, before the merry month of June arrived, to build with a vengeance and make up lost time.

The highest known amount of construction work done in Chicago before was one hundred and twelve million in the year 1916. The year 1922 will show these figures to have been passed in the early months and a new high figure set of more than two hundred millions.

After the month of July it was found extremely hard for contractors to tell where they were at. In some trades the scarcity of mechanics was felt before this, and before the fall in almost every trade men skilled or unskilled were hard to get.

The Citizens' Committee had men in all of the principal cities trying to secure help, not only in the outlawed trades, but in many of those trades who were "going along." Their efforts were of great assistance to the contractors and helped considerably to lighten the heavy burden of the contractor who was being pushed to complete his work.

Dover, Ohio, Tin Shop Changes Ownership.

George Pershing, Dover, Ohio, has sold his tin shop and stove and furnace business to M. A. Miller and sons, Raymond and Forrest Miller. Mr. Pershing conducted the business for eleven years.

1922 Business in Zinc Industry Best in Years as Prices of Ore and Slabs Rise.

Stephen S. Tuthill, Secretary, American Zinc Institute, Tells How Association Has Modernized Merchandising Methods.

THE close of 1922 found the American zinc industry in better shape than it has been in many years.

The 1922 output of slab zinc (the barometer product) will approximate more than 1,000 tons a day (and every day in the year is a zinc working day), or between 365,000 and 375,000 tons.

This is the declaration of Stephen S. Tuthill, Secretary, American Zinc Institute, Inc. In a review of the year past, he declares further:

The tonnage of slab zinc is equivalent to twice that quantity of ore, or between 730,000 and 750,000 tons of zinc ore, or concentrates. By far the larger part of the zinc ore produced in the United States comes from the Missouri-Kansas-Oklahoma district.

Gradually coming "out of the red" by courageously putting their houses in order in 1921, this year

the price of Tri-State zinc ore rose from $31 to $45 a ton, and that of slab zinc from 4.80c to 7c a pound, St. Louis base.

The United States stock of slab zinc on hand at the beginning of the year was 66,000 tons, having been reduced from nearly 100,000 tons on Aug. 1, 1921.

At the end of 1922 that stock probably stood between 20,000 and 25,000 tons, or scarcely two weeks' supply at the present rate of consumption.

The scarcity of slab zinc in Europe has been leading to a considerable export business in the latter half of the year, and relatively large sales for foreign account are being made into the first quarter of the new year.

The sheet and strip zinc mills have also had a relatively good year. This has been due in part to the activities of the trade association of the industry and to a further modernizing of their merchandising methods.

One of the sheet mills reports 700 zinc roofing installations and expects that that number will reach 1,000 before the end of their advertising year. That advertising, it should be noted, is confined very largely to the dealer and jobber.

Only a year or two ago 1 per cent of the sheet zinc produced in this country was formed into roofing, while the largest zinc company in Europe was using 95 per cent of its sheet zinc output for that purpose.

In roofing and roofing accessories lies the opportunity for the future growth of the American zinc industry, and every effort is now being made to have the wonderful possibilities of this field developed at an early date.

Compare the conditions at the end of 1922 with those of the fall of 1920, when zinc ore fell below $20 a ton (the lowest price in 20 years) and slab zinc to close to 4 cents a pound (the lowest price in 15 years).

The American Zinc Institute is the national representative of practically every zinc mine of any consequence, of every prime zinc smelting plant and of every sheet and strip zinc rolling mill in the United States. A trade association has been defined as "the modern stabilizer and developer in a particular industry for the common good," and that is the role the American Zinc Institute is playing in the zinc industry today.

What the Repair Man Needs to Do About the Automobile Radiator.

E. E. Zideck Explains What It Is, What It Does, and How It Works.

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD by E. E. Zideck, Instructor in Charge of Sheet Metal Work and Allied Lines at the Lincoln Institute, New York City.

Lesson 1.

The Radiator in Use.

THE foregoing lessons were devoted to a study of the purpose, design, and construction of the radiator in order to acquaint the student with the details which it is imperative to know before attempting to repair or rebuild a radiator. This second part continues to impart to him the details of the radiator when out of order and in need of repair or of a new core.

By acquainting himself with these details, the student will be in a position to find radiator troubles readily and go about their removal in a scientific manner.

The course of study followed in the first part applies equally to the second part, and the student is cautioned against trying to learn more than one Lesson at a time.

The proper way to learn the details as outlined in the several Lessons is to obey the directions given in the head and foot notes. That is: Read the respective statements carefully and try to understand them fully by evolving *correct* answers to questions asked, and conclude with a written record of answers to each of the capital questions at the conclusion of each Lesson.

The reader is once more advised to study each statement carefully. Try to understand it fully by turning it over and over in your mind. Then state the facts it contains in as many different wordings as you can think of.

Answer the following questions in as many different ways as possible, and do not proceed to the next question, unless you fully comprehend the meaning of the first question and have answered it, understandingly.

Effect of Use on a Radiator.

The longer the engine is in use, the more it heats up and the larger the amount of heat, therefore, the Radiator must carry away from it. On the other hand, the longer a radiator is in use, the less readily does it cool.

Dirty or alkaline water used in a radiator for a while will coat and, particularly in a carelessly devised cellular core, will stop the water channels.

The dust of the road which may have settled on the fins or the walls of the air passages also prevents the satisfactory cooling of the ducts. Inside coating or obstruction makes for less water circulation; outside coating and stoppage

of air passages makes for less cooling.

Questions.

1. Does a radiator need to be broken apart or leak to be out of order?

2. What will make a perfectly solid and tight radiator in need of repair?

3. If a radiator boils water, what might be the cause?

4. Is the boiling of water in a radiator a *natural* condition?

5. What will dirt contained in the water channels do to the radiator?

6. What will lime stone coating do to the walls of the water conduits of a radiator?

7. What will dust and mud do to the fins and air passages of the radiator?

8. Is an old radiator just as good as a new one?

9. What, in a radiator, is of the greatest importance?

10. What part of the radiator can be replaced by a new one to insure a service equal to that of a new radiator?

Memorize the foregoing facts about dirt and lime coating inside the tubes, and dust and mud on the outside of the radiator core.

Effect of Preparations Introduced Into the Tank.

There are various preparations being used by car owners to either stop a leak in the radiator or to prevent its freezing in cold weather: Anti-Leak, Anti-Freeze, Kerosene, and other oily liquids.

Any one of the above preparations will be injurious to the radiator core; especially so to the small dimension cell core. If they do not stop, yet they will so minimize water circulation and heat conductivity of the metal that the effectiveness of the radiator is greatly impaired. Any of the above preparations, and greasy liquids in general, will settle in the joints of the core and make its repair by the only effective and non-injurious method, that of *soldering,* practically impossible.

Without heating up the metal, solder will not hold; and heating up the metal causes the greasy substance within the joints to boil out and thus prevents the solder sticking and flowing into the joint, which is the only way to make the joint hold.

Questions.

1. What preparations, used in the radiator, will minimize water circulation and heat conductivity?

2. What will prevent solder sticking to the broken joint?

3. Why are the different preparations being used?

4. What will they do to the small cell core?

5. What will they do to the walls of the water channels?

6. What will they do to the core joints?

7. Will a broken joint hold, if re-soldered while filled with foreign substance?

8. In what way will the radiator, in which a preparation of that kind has been used, show the effect?

9. Does it matter if a radiator boils?

10. In what way does it matter?

11. In what condition should the radiator core be to perform its service properly?

12. What is the proper service of the radiator?

Review.

Write correct answers to the following questions.

a. Why does an old motor (one long in use) heat up more than a new motor?

b. Why does a Radiator in use for a while cool less than when it is new?

c. What effect upon the radiator have the use of impure water in it and a dirty exterior condition?

d. What will dust gathered on the radiator do to it?

e. What causes less water circulation in a radiator?

f. What effects upon it have the use of preparations in the radiator?

g. Which kind of core will suffer most if preparations are used in the radiator?

h. What is the only effective way to repair the breaks and leaks in a radiator?

i. What will prevent solder from effectively joining the breaks and stopping the leaks in a radiator?

Memorize the above facts relating to inside and outside coating of the radiator core. See if you can think of some other injurious coatings applied to the radiator and tell why such coatings are misapplied.

Landis Award Body Trains Fourteen Sheet Metal Apprentices.

The Chicago Citizens' Committee to Enforce Landis Award has answered the cry of contractors for "new blood in the building trades" by training and placing 79 apprentices in the last three months.

The youths were selected carefully, then given two weeks' intensive training at the Citizens' Committee free trade school, 500 South Throop Street. At the conclusion of the training period, they were placed with contractors on pay, and are now returning to the school one day a week for further training.

Of the 79 apprentices, 43 were future plumbers, 18 bricklayers, 8 painters, and 14 sheet metal workers.

"By the time the building boom reaches its peak we expect to have several hundred apprentices trained and at work," said General Manager F. W. Armstrong, "as the school is now functioning smoothly and efficiently.

"The work of organization is now over. The necessary machinery and other special equipment has been installed, the teachers are accustomed to their work, and the 79 boys which we have already placed have convinced the contractors as to their value.

"The school is also playing a valuable part in training competent mechanics for jobs as foremen. That the men are alive to the future which is offered them in this respect is shown by the journeymen plumbers' class.

"When this class was first organized nine months ago, it had an average attendance of about 25. At a recent evening meeting, the attendance was 88."

Credit as a Power.

The rising interest in the part played by credit in our commercial system encourages the hope that credit may finally become better understood and that many mistakes that now impose heavy burdens on business may be avoided. Undeniably, the misuse of credit is largely responsible for our depressions, says J. H. Tregoe, Secretary-Treasurer, National Association of Credit Men.

We think of credit too superficially. When an article of dress is obtained of a retail store on a charge account, we never think of the act in its broad significance. We thing of it as a single transaction by itself. When the retailer buys on credit of his supply houses, and when the wholesaler orders in large lots from the factories, we still think of the credit medium as a most ordinary thing that fits itself so naturally into our daily lives. The fact, however, that the simple article of dress can be procured on credit and that an enormous flow of commodities daily through the Nation and into the markets of the world can be carried on under credit terms should lead us to reflect that in dealing with credit we are dealing with something of deep significance that burrows into the vitals of human life.

That even a simple piece of wearing apparel can be bought on credit indicates that the buyer possessed a power which was translated into an ability to exchange his promise for a commodity of value. Credit, therefore, is expressive of a power lodged in an individual or combination of individuals. It is a power based on qualities which inspire confidence, and furthermore, it is a power which may diminish as conditions change within the buyer himself or as exterior circumstances occur that may affect his abilities to pay.

The conception of something within us that is accepted as a sufficient consideration for the transfer of commodities—the exchange of a tangible for an intangible thing, is a great conception.

We must elevate the appreciation of credit, and have it known that he who possesses it is the possessor of a power that should be carefully directed and righteously expressed.

Courtesy to Traveling Salesman Pays Big Returns.

Commercial travelers today are recognized business-builders, and a retail merchant surely makes a serious mistake in not showing every commercial traveler who calls upon him all the courtesy possible. I realize that the business man has a great many problems to solve every day. They are confusing at times to the point of irritation; but still, 1923 will be one of the years when the retail merchant is going to succeed beyond his fondest expectations if he will relax and train mentally in a way to meet any emergency.

Notes and Queries

Burlap in Rolls.

From Western Sheet Metal Works, 12-14 West 17th Street, Scottsbluff, Nebraska.

Can you inform us where to buy burlap in rolls or bolts, such as is used for roofing purposes?

Ans.—M. J. Neahr and Company, 16th and Dearborn Streets; L. Richard and Company, 1814 South Robey Street; and Chicago-Detroit Bag Company, 648 Marquette Building, all of Chicago, Illinois.

Extension Ladder.

From W. A. Eagleton, 2028 North Union Street, Decatur, Illinois.

Who makes an extension ladder that is light and has wire truss running back of the sides?

Ans.— Walchli Manufacturing Company, 4711 St. Louis Avenue, St. Louis, Missouri.

Oil Burners.

From C. B. Rose, 322 South Carolina Street, Louisiana, Missouri.

Please inform me who makes oil burners for furnaces.

Ans.—Standard Foundry and Manufacturing Company, 204 Scarritt Building, Kansas City, Missouri; McEwen Furnace Company, Department 103, 15th and Brooklyn, Kansas City, Missouri; Best-Heet Oil Burner Company, 508 West Van Buren Street, Chicago, Illinois, and Breeding Heat and Power Corporation, 311 Vine Street, Cincinnati, Ohio.

Sheet Aluminum.

From Ralph W. Poe, 150 North Main Street, Canton, Illinois.

Will you kindly tell me where I can secure sheet aluminum?

Ans.—Aluminum Company of America, 110 South Dearborn Street, and United Smelting and Aluminum Company, 80 East Jackson Boulevard, both of Chicago, Illinois.

Electric Signs.

From Antigo Sheet Metal Works, Antigo, Wisconsin.

Please advise us who manufactures electric signs.

Ans.—General Sign System, 1716 South Michigan Avenue; American Sign Works, Incorporated, 626 Plymouth Court; Federal Sign System, 72 West Adams Street, and Illinois Electric Sign Company, 3039 Archer Avenue, all of Chicago, Illinois.

Wood Boat Pump Handles.

From Peter A. Degnan, 330 Bloomfield Avenue, Newark, New Jersey.

Who makes wood boat pump handles?

Ans.—Belson Manufacturing Company, 800 Sibley Street, Chicago, Illinois.

"Wyoming Red Paint" Shovel.

From C. A. Nordgren, Paxton, Illinois.

Kindly let me know who makes the Wyoming Red Paint Shovel.

Ans.—Wyoming Shovel Works, Wyoming, Pennsylvania.

Oil Burners.

From George S. Grout, 1152 Sage Avenue, Lake Geneva, Wisconsin.

Who makes crude oil burners?

Ans.—Standard Foundry and Manufacturing Company, 204 Scarritt Building, Kansas City, Missouri; McEwen Furnace Company, Department 103, 15th and Brooklyn, Kansas City, Missouri; Best-Heet Oil Burner Company, 508 West Van Buren Street, Chicago, Illinois, and Breeding Heat and Power Corporation, 311 Vine Street, Cincinnati, Ohio.

Events and Progress of the Hardware Trade.

What the Retailers, Jobbers and Manufacturers Are Doing Latest Selling Methods and Experiences of Successful Men.

Interchangeable Mileage Books Will Be on Sale About March 15, 1923.

The efforts of the Old Guard Southern Hardware Salesmen and of other organizations to have the Interstate Commerce Commission bring about a reduction in railroad fares have been successful to the extent that an order has been issued to the railroads instructing them to issue interchangeable mileage books for 2,500 miles with a discount of 20 per cent, the net cost being $72 for the book.

The books are expected to be obtainable about March 15th, but some of the weaker roads will not be required to accept coupons from these books in payment of fare.

Michigan Retail Hardware Convention Sets Record for Numbers and Excellent Program.

Many Inspirational and Instructive Addresses Mark Grand Rapids Gathering—Secretary Scott Reports 1,620 Paid Members.

A PROGRAM packed with meaty speeches and inspirational addresses, a gathering unexcelled for numbers and trade representation and an exhibit of hardware products and allied lines unsurpassed in its history, marked the annual convention of the Michigan Retail Hardware Association, which held forth in Grand Rapids during the week just closed.



Charles A. Sturmer.

The convention was preceded by a meeting of the Executive Committee and Advisory Board in the Mezzanine Room, Hotel Pantlind, Monday evening.

Tuesday morning the splendid array of exhibits, gathered under the direction of Karl S. Judson, Exhibit Manager, in the Klingman Furniture Building, was thrown open to the visitors, and the morning was devoted to viewing the many fine displays and to registration.

The sessions proper opened Tuesday afternoon in the Hotel Pantlind with invocation by Past President Charles M. Alden, Grand Rapids. President Charles A. Sturmer introduced City Manager Julius H. Fisch, representing Mayor William Oltman of Grand Rapids, who delivered the address of welcome. The response was by Vice President J. Charles Ross, Kalamazoo. Then followed the address of President Sturmer.

Part of Address of President Sturmer.

The future of the local merchant depends upon practical buying and proper selling. He must carry the right goods, in the right quantities, and at the right prices. He must have practical buying plans and definite selling plans. He must know the condition of his business at all times and utilize every good merchandising idea that he can find.

Only a comparatively few years ago we seldom heard of stock turnover. Goods in hardware stores stayed an average of nine months on the shelves. Practically one-half of the retailer's expenses was directly due to carrying goods too long. About one-fourth of his lost sales were due to incomplete range of stock. Fully one-fifth of the average hardware stock was "dead stock" from the moment it entered the store. There has been some improvement but not enough. There are many new lines that might be added to your hardware stock, such as toys, radio supplies, automobile accessories, etc.

At present, some of you are probably debating as to the advisability of putting your business on a cash basis. I firmly believe in selling goods for cash. I believe a credit or cash business is a matter of habit and education. Why should we hardware dealers extend credit, when we have to pay cash for what we buy at a grocery store, meat market, restaurant, etc.? If a customer had been taught he can buy goods on long time he will continue to ask for credit, even with money in the bank, or in his pocket. And this same man, who has been educated to credit, will not pay for his purchases until forced to do so.

On the other hand, if a dealer has established a reputation for selling only for cash no one asks or expects him to extend credit. Men who want his goods always manage to have the necessary amount of cash or are willing to give a bankable note when purchases are made. A credit giving dealer is expected to sell goods just as close as competing cash stores and mail order houses. Customers who want credit in most cases demand cash prices. When you sell for credit you must meet your customer at least two or three times for the same profit.

When you sell for cash, your sale is made. Your customer owes you nothing—is under no obligations to you, is a free man, walks by your door like a peacock, speaks freely to you. Why? Because he owes you nothing, and best of all, your profit is in your till. You have the money to pay your bills—if you owe any.

You will probably all be interested to hear what our association has done during the past year. We held 31 group meetings in the state and have also held two joint meetings with the Wisconsin Association. The attendance at these meetings totaled nearly 1,400. You who attended one of these meetings, I am sure, felt well repaid for your time thus spent. The bulk of the arrangement of this work rested upon Mr. A. J. Scott. We are fortunate, indeed, that we have a man like Mr. Scott in our Secretary's office. He is well known to all of you. He is a conscientious worker and is known throughout the hardware world because of his ability to do things and do them well.

We are also very fortunate in securing Mr. Nelson as field secretary. His work has taken him throughout the state, and nothing but praise has been heard for the splendid work he has done at group meetings and the help he has given individual merchants. He is an expert on the installation of accounting systems,

store arrangement, advertising, community service, etc. His time is yours and I know he is always willing to help solve your problems.

The year 1923 is now upon us. We can make you realize that Association service has concrete value only when we show you by concrete example what you can do by accepting our service and following out our instructions.

No matter how poor, or how unsatisfactory, your business may be at the present time, there are better times ahead, but you must buy wisely, watch your credits, keep well assorted stocks, advertise wisely, encourage building in your community, talk confidence, take home a message of good cheer, and prosperity will be yours.

Other addresses of the session were by Lee Bierce, secretary of the Grand Rapids Association of Commerce, "The Safety of the Republic," and by Dr. Alexander Karr, Chicago, "Community Spirit and the Business Man."

Wednesday morning the members listened to an inspiring and instructive address on "Efficiency in Business" by E. L. Prentice, Grandville.

Excerpts from Address by E. L. Prentice, Grandville, Michigan.

The meaning of the word efficient, boiled down into a nutshell is making effect. That is what every business man, or professional man either must do if he is to be a success. Make an effect, create, establish himself in the hearts and minds of the people. He must do this, first by honesty and integrity. He must win the confidence of the people by fair and square honest dealing. If you tell a man that you will do a certain thing, or get a certain thing for him at a certain time, fail not in doing it, or if for some reason you can not do it tell him the reason. If you have been forgetful and forgot to do the thing, just be honest enough to tell him you forgot, don't lie.

The second thing in order to make effect is a uniform price to all. The thing that will kill business quicker than anything else, is one price to one man and a different price to his neighbor. Of course you say to him, "Keep it under your hat," but if there is any one thing that mankind likes to do, as a rule, it is to boast that he bought an article a little cheaper than his neighbor, and of course the neighbor finds it out, hat or no hat.

Another thing to make effect is to catch the eyes of the public. This may be done in several ways. Road signs—people riding along the roads are always looking for something to see, and if it is your name on fence, trees and barns they soon begin to think about you and your business. I remember several years ago driving through a certain section of this state seeing signs printed and painted on every stone and every piece of board fence along the road, like this, "Bolicker has fits" and "Bolicker has fits in green packages," and soon my curiosity was aroused and I began to wonder just what kind of *fits* "Bolicker" had and what was meant, so I began to make inquiries and found that Bolicker was a shoe man and that he always used green paper in wrapping his packages, then I readily understood the kind of *fits* Bolicker had. The point in this Bolicker made *effect* in the minds of the public who saw his signs, as he did in my mind, and therefore aroused their wonderment.

Then you must attract the eyes of the public to your windows and the front of your store. Make some big ad on the front of your store that will connect up with the signs along the road so that when a person who has been reading your signs can easily connect your store with those signs. Make your windows attractive by setting forth some idea. For instance, it is soon spring and will soon be pruning time; bear out that idea by getting a tree, setting it up in the window nicely pruned with the pruned away limbs lying all around the foot of



J. Charles Ross.

the tree and all of the necessary pruning tools displayed. It catches the eye of the passers-by.

Sometimes a very small thing will catch the eye. I remember printing a sign in one of my windows, printing it from the inside, therefore I had to print back hand. The thing that I wanted to do was to call their attention to a sale I was going to put on in a few days, so I printed this, or, thought I did "Watch this window for bargains," but I printed like this "Watch this widow for bargains." It did not take the people long to discover my mistake and have a big laugh over it and come and call my attention to the mistake.

Don't have a miscellaneous junk heap in your window for its doesn't attract. After you have made your window attractive then have the inside just as attractive by keeping everything in order and in its place. No place of business can command attention if it is allowed to become a conglomerated junk pile.

Then, above everything, have a price tag on every article. There is nothing so embarrassing for a salesman as to have a customer come in and look at some article and ask the price, then have to begin to mumble and turn and squint looking for a price that is not there and then have to say, "I'll have to look it up," and leave them stand while he goes and looks through a lot of invoices to find the price of the article in question. *Price mark everything with cost and selling price.*

The next thing to make effect is to be always kind and courteous. There are times I know when one feels like telling customers to go to the place which some preachers have become to modest to mention, but we can't do it, or should not do it, and after they have fingered over everything they can get their hands on and then asked to see all they can't reach from a mousetrap to a washing machine and then walk out saying, "Well they don't just quite suit me," we should smile and say very courteously, "Call again." I know one may not feel like it but it is a part of the game and if we are to be efficient we must play the game.

The next thing to make effect is for the proprietor to take no more liberties in cutting a price than he will concede to his clerks. If you are in the habit, on a large deal, to make a little concession from the original price in order to make the sale, post your clerks and give them the margin of reduction you could possibly make. There is nothing so humiliating to a clerk, or a thing that will make them so inefficient in your business as, after they have talked merits and quality and exercised their salesmanship to the point of selling, if there could possibly be a little reduction made, and then have to call the proprietor and turn the customer over to him and he make the reduction and close the sale.

Any man that will practice that method may as well hire a chore boy and do the business alone. I say this for the very reason that a customer comes into your store to make a purchase, the clerk is immediately on the job, meeting them half way to the door and asks what he can do for them. "Oh nothing," replies the would-be customer. "Where is the boss?" receiving the information that he is out for a little while says "I guess I'll wait and see him." *Why?* because he has learned that he can do a little better with the boss than he can with the clerk and therefore your clerks are not efficient in your business.

The business and accounting of merchandising was the theme of the other three addresses which marked this session: "Stocks, Profits and Balances," George W. Schroeder, Eau Claire, Wisconsin; "Store Records," Past National President Samuel R. Niles, Argos, Indiana; and "Relation of Stock Turnover to Net Profit," Martin L. Pierce, Promotion Manager, The Hoover Suction Sweeper Company, North Canton, Ohio.

Part of Address of Martin L. Pierce.

One of the rankest fallacies that has gotten into the retail dealers' mind is that the larger the mark-up the larger the profit. Too many merchants overlook the fact that their cost of doing business of, say 25 per cent, cannot correctly be used to demand a 25 per cent margin of profit on each and every kind of merchandise sold, because it is the percentage of profit on one sale and not on the year's investment. A larger margin of profit needs to be added to the slow-moving materials and a smaller margin to the quick-moving.

The explanation of this fact is that items of selling expense depend primarily upon the stock of an article

usually carried, whereas other items of selling expense depend principally upon the volume of sales of the individual articles. Such items as rent, light, heat, depreciation and interest on capital depend primarily upon the stock carried at any one time. Salesmen's salaries, service expense and losses from bad debts depend primarily upon the volume of sales. If a grocer carrying a stock of barrel salt can increase his turnover from one to four times a year, it means that just one-fourth the rent will be charged against each barrel sold.

The vital point of turnover is how much profit can you make a dollar earn selling a given article. Any business man can get rich earning a 5 per cent margin of profit on one certain commodity if he sells it often enough; on the other hand, he may go bankrupt on merchandise offering 100 per cent profit if he rarely makes a sale. Quantity selling is the greatest modern profit policy.



A. J. Scott.



William Moore.

The profit on any one article or commodity is not much, but when this profit is multiplied by 1,000 or 5,000 or 10,000 the profit on the volume becomes considerable.

The "equivalent merchandise investment" must be expressed in terms of time as well as of money. The fundamental unit in which equivalent investment is expressed is the dollar-year. It may also be expressed in some related unit which is reducible to dollar-years, such as dollar-months or dollar-weeks. In explanation of this, one dollar invested for one year is a dollar-year. Two dollars invested for six months, or three dollars invested for four months, or fifty cents for two years, are all exact equivalents of a dollar-year.

Thus, if you invest $500 in a certain article or commodity twice a year you have an equivalent investment in that particular article of $250. Suppose your sales of this article for the year to be $1,000. By dividing the equivalent investment of $250 into your sales of $1,000 you find that your rate of turnover is four. If you invest $500 in a given article every three months you have an equivalent investment of $125. If your sales in that article for the year amount to $2,000 your rate of turnover is sixteen.

In the wholesale grocery business, firms doing less than $500,000 worth of business, the expense is 11 per cent of the gross sales; those doing from one to two million dollars a year, the expense is approximately 12 per cent because of increased cost of doing business farther away from home. The salesman's expense and freight charges will be larger. In a wholesale grocery with a turnover of less than four, the cost is approximately 13½ per cent; those having a turnover of from four to six, 11½ per cent; and those with more than six turnovers, 10½ per cent. Therefore, to reduce the cost of doing business, get more turnovers, not greater volume.

Wednesday evening was given over to a question box for hardware dealers only, in charge of Charles A. Ireland, Ionia; Scott Kendrick, Ortonville, and J. Charles Ross, Kalamazoo. Reports also were presented by Treasurer William Moore, Detroit, and Secretary Arthur J. Scott, Marine City.

Annual Report of Secretary Arthur J. Scott in Part.

When the dues were unanimously advanced a year ago by the convention, I told President Sturmer that if we could report at our next convention a membership of 1,500, I would be more than pleased, as this would only show a falling off of one out of every sixteen that might be affected by the increase.

I am pleased to report that we have shown no loss, but have shown a gain which is very gratifying.

Our membership at the time of the last convention	1,590
Resigned, gone out of business and canceled for non-payment of dues	147
Old members still on our membership list	1,443
New members taken in since last convention	177
Our present membership (no delinquents)	1,620

The possibilities of a larger membership are much greater in some of the other states than in Michigan, for the reason that they have a larger population and more dealers, and we, no doubt, will eventually have to drop in line; but at the present time, I am pleased to tell you that Michigan has a larger membership than any other single State Association. There are many counties in the state where we are 100 per cent organized.

But, however satisfactory such unusual membership growth may be, it means little unless it reflects a similar measure of progress in constructive association activity and service. After all, membership service is the real object of and reason for association existence, and enlarged membership is simply a means of better coordinating the retail forces to work together in the solution of their common problems.

Each year there are additional services being added to the activities of our organization. This year we added two: a traffic department, to audit the freight bills of our members, and a field secretary, to devote his time making personal calls, presenting personally, the many services being rendered by the Association, and helping in any way, to improve the conditions of the hardware man, so as to make him a better merchant. I am very pleased to report that this later service has been of much benefit to many of our members, as Mr. Nelson, our field secretary, seems to be the right man in the right place. He has done excellent work and I know through his personal efforts has improved the conditions of many of the hardware stores of the state.

I very much regret to report that the other service, that of auditing of freight bills for our members, has not been as satisfactory. Freight bills are checked

on a commission basis and the amounts recovered from a bunch of hardware bills is very small in comparison with what is recovered from the bills of manufacturers, jobbers, coal dealers and others who have carload shipments. Naturally, our bills were put to one side and many have not as yet been checked. For this reason, our traffic department was moved to Port Huron and is being operated in conjunction with the traffic department of the Port Huron Chamber of Commerce. We hope that our members will be patient, as we expect to get this department going right and will soon be in a position to make a report on all bills that have been sent to the Association for audit.

The hardware mutual fire insurance companies have continued their creditable records and while fire losses increased in Michigan in 1922, compared to 1921, the standing of the companies has improved and this form of insurance has been recognized as the strongest protection a hardware man can have against loss through fire. In addition to the enormous saving which these companies have effected for our members, we have found them anxious to make prompt and fair adjustments of all claims and without resorting to the technicalities which formerly were expected from the old line companies when a fire loss was to be adjusted.

I am much interested and enthusiastic about Group Meetings, as I believe they are of much benefit to those that attend. The past year thirty-one were held in Michigan and we had two joint meetings with the Wisconsin Association on the Michigan-Wisconsin border. Meetings were well attended, and our members were, in every instance, desirous of having them continued.

There were three instructive addresses on the program Thursday morning, as follows: "A Hardware Man's Interest in Consolidated Schools," Herman C. Meyer, Boyne Falls; "The Psychology of Window Advertising," William L. Fuehrer, Boyne City, and "How to Build a Selling Program," Frank Stockdale, Chicago.

The annual banquet and entertainment was held Thursday evening at the Coliseum. The delegates assembled in a body at the hotel and marched to the Coliseum. The speaker of the occasion was Dr. Marion LeRoy Burton, president of the University of Michigan, who delivered a memorable address on "Education and Citizenship."

The executive and closing sessions were held Friday afternoon, the convention closing with the election of officers and the selection of next meeting place.

The 1923 convention will be remembered for its many entertainment features. Tuesday evening there was a theater party at the Empress Theater. Wednesday afternoon there was given a card party for the ladies at Hotel Pantlind and Thursday afternoon a theater party for the ladies at the Majestic Theater.

The election of officers for the ensuing year resulted as follows:

President—J. Charles Ross, Kalamazoo.

Vice President—A. J. Rankin. Shelby.

Secretary—A. J. Scott, Marine City, re-elected.

Treasurer—William Moore, Detroit.

Executive Committee (term expiring 1925)—L. J. Cortenhof, Grand Rapids; Scott Kendrick, Ortonville; George W. McCabe, Petoskey, re-elected; and L. D. Puff, Fremont, and Herman Dignan, Owosso, succeeding J. H. Lee of Muskegon and A. J. Rankin of Shelby.

Conventionalities

Once again we must take off our hats to Karl Judson, Exhibition Manager, to whose faithful and efficient work much of the credit is due each year for Michigan's successful exhibition.

With J. Edwin Ellis, the Three Waddells (Robert J., Robert L. and C. Weldon) and John Pankow in attendance, no wonder the large exhibit room of the Independent Stove Company always seemed crowded. Many were the congratulations they received on the new additions to Renown Range line. Souvenir elephants, by no means "White Elephants," however, were given to all visitors.

Big "Jim" Doherty spent Tuesday and Wednesday "assisting" F. S. Gottschalk in the Utica Heater Company booth. "Jim" worked hard greeting his Michigan friends and someone said they saw him buying a new hat because the one he had brought with him from Chicago wouldn't fit after he heard the many fine things that were said about the Super-Smokeless Furnace.

Yes, Gus Ruhling was there—no Michigan convention would be complete without him. He and Howard Vaughan unquestionably had by far the best tool exhibit. "Gus" has had so much experience it is no wonder he knows how to get the complete Vaughan & Bushnell line displayed so the dealer automatically stops, looks and buys.

Of course, I stopped to say "Hello" to my old friend, S. L. Webster, at the E. C. Atkins booth. Webster has a new pet—their new Silver Steel Saw Junior—which has been developed to meet the demand for a smaller size saw, brought about by the increasing use of tools by boy scouts, in vocational schools, etc., and, "Say," said he, "it also is a practical saw for household use and we pack them in individual attractive boxes." Robert Eveland and A. Witgen helped Webster sing the praises of Atkins' Silver Steel Saws.

Frank Ederle—it isn't necessary to introduce him as everybody knows he is the "Michigan Standard" secretary and 100 per cent popular—missed the first day of the convention, as he was up in Bay City working with Adam Schepper and his committee on arrangements for the big Michigan Sheet Metal Convention scheduled for that city from February 26 to March 1. Don't forget the dates. Bay City says "Everybody's welcome," and means it.

Scott Bowen and Loren Monroe talked Paramount and Monarch Malleable Ranges to interested dealers, and judging from the frequent use they made of their order books, they are convincing talkers.

The Premier Warm Air Furnace booth was presided over by D. Carney and their new Michigan man, Glenn Burgess, who apparently are mighty popular with the Michigan "bunch."

A. L. Luecker, advertising manager of R. J. Schwabs & Son's Company, made his debut in Michigan society and brought with him that new furnace they are just placing on

the market. He and George Johnson, who travels Michigan for the Gilt-Edge folks, surely had enough dealer-visitors at their exhibit.

George Crawford, Robert Mimack, Harry Wilson and William Hill, who incidentally is the Garland Sales Manager, were pretty busy explaining how the new flame-spreading burner works on their new gas and combination stoves.

Every time I tried to get the names of those doing the honors in the American Steel and Wire Company booth there was such a crowd of dealers lined up I finally gave up in despair.

No wonder the Tee and Bee folks are so proud of their new Tanbo Finished Registers. David Farquhar, who is doing most of the traveling in Michigan for Tuttle and Bailey these days, had his samples displayed, and it could be easily seen why they take so well with the trade.

Yes, Trow Warner came up for a day. He couldn't stay away from a Michigan convention—well—and I don't blame him.

"Charlie" Nason and E. N. Rowley at the Milcor stand as usual knew everybody and kept pretty busy writing orders.

The Rudy Furnace Company as always had a big hospitable looking booth with Bert Dunn, Edwin F. Snyder and C. A. Gilson to extend the "glad hand" to all comers.

W. R. Cameron, Trade Promotion Manager of Fox Furnace Company, spent considerable time showing interested dealers how his company helps the retailer to sell to his customers. M. Kerkhoff, Michigan representative, assisted him.

Our old standby—everybody knows him—Harry Neal, was so proud of the opportunity to show the New Victor Steel Furnace he didn't even get "peeved" because the sign painter had his name spelled incorrectly.

"Doc" Weatherly found time to visit his friends and though he left his phone number at the "box office" we were all mighty glad he wasn't called away to tend some sick furnace.

E. C. Dunning didn't have any particular booth but no matter where "E. C." visited he surely was welcome.

It sure seemed good to see our old friend H. W. Beegle at the conventions again.

Fine Exhibits, Instructive and Inspirational Addresses, Mark Wisconsin Hardware Convention.

President Peck Issues Note of Conservatism—Important Speeches and Notes of Memorable Milwaukee Gathering.

FOR enthusiasm, numbers, fine exhibits and meritorious addresses, the twenty-seventh annual convention of the Wisconsin Retail Hardware Association at Milwaukee this past week established a new mark.

From the hour Wednesday morning when the Auditorium, main arena, Juneau and Kilbourn Halls, was thrown open to permit public view of the splendid exhibits of hardware and kindred lines, until the final meeting of the executive committee and officers at Engelmann Hall Friday afternoon, the several hundred Wisconsin hardware merchants, gathered for the annual event, enjoyed a continuous program of entertainment and instruction.

Registration at the office of Secretary P. J. Jacobs, to whose credit the execution of the excellent program largely rests, was the first order of business Wednesday morning.

At the annual meeting of the Hardware Mutual Casualty Company, held in Engelmann Hall at 10 o'clock Wednesday morning, President O. P. Schlafer reported the company had written $681,970.06 business during the year, an increase of 28 per cent over 1921. This business was divided: workmen's compensation, $194,141.50; general liability, $12,142.58; automobile, $400,900.08; and plate glass, $74,785.90. He said:

Part of Report of O. P. Schlafer.

Workmen's Compensation increased 22 per cent; General Liability, 44 per cent; Automobile, 35 per cent, and Plate Glass 11 per cent over 1921. As rates on all lines were practically the same as 1921, our increase was due almost entirely to new business. During the past year 2,863 policyholders were secured, making our total membership 10,764.

Last year we predicted a falling off in Workmen's Compensation premiums, but instead we had a fine increase. In practically all states we may look for an increase in the benefits under the Workmen's Compensation Acts during the various legislative sessions. Increased benefits will result in increased rates as Workmen's Compensation insurance has not been very profitable to any of the companies in the past three years.

Automobile insurance has continued its usual consistent growth and we should exceed a half million dollar premium income on this line during the coming year.

During the year a total of 3,607 claims were reported to the home office, making a total since organization of 8,131. Of this number only 409 were unsettled on January 1st.



L. C. Peck.

Our assets increased 30 per cent and our cash investments total $436,760.26. Of this amount $292,790.20 is in Fourth Liberty Loan Bonds. Because of our excellent experience on Automobile, General Liability and Plate Glass Insurance, our customary dividend of 33⅓ per cent has been declared on these classes. Our Workmen's Compensation dividend on policies expiring during 1922 was made 25 per cent, and is being paid at this time.

With a 50 per cent increase in business in January of this year over January, 1922, we feel confident that 1923 will close with an $800,000 premium income.

The policyholders of the Hardware Dealers' Mutual Fire Insurance Company were addressed by

President O. P. Schlafer at their nineteenth annual meeting, in the Auditorium at 11 o'clock Wednesday morning. In his review of the year he stated:

Our assets increased $124,076.34, and with the revival of business, which should be reflected in a lower loss ratio, there will be a material increase in 1923. The rapid growth of the company necessitates a marked increase each year in our unearned premium reserve, which makes it difficult to increase our surplus. The unearned premium reserve for the year was $170,000.

Two years ago we amended our articles of incorporation so that we could write the property of hardware and/or implement merchants and property in which they were financially interested when used for purposes other than their hardware and/or implement business. Jointly, with the Minnesota Hardware and Minnesota Implement Mutual Companies, we have arranged to take care of this business through an underwriters' policy known as the Federal Hardware and Implement Underwriters. This is a joint policy with individual liability which avoids the necessity of issuing three separate policies. On first class risks in protected towns we can take care of $45,000 in one policy, if desired.

Automatically each company is bound for one-third. To date, we have written $41,000 in premiums on this class of business, but this will have to be materially increased to get an average. At present, the dividend on this class of business is 30 per cent, and our experience will determine whether this is to be increased.

Mr. Schlafer was elected president at the joint election of officers and directors of the Hardware Dealers' Mutual Fire Insurance Company, and Hardware Dealers' Mutual Casualty Company.

Other officers chosen were: R. C. Murdock, Beloit, vice-president; P. J. Jacobs, Stevens Point, secretary-treasurer; and Louis Hirsig, Madison; Jacob Kornely, Milwaukee; J. W. Jones, Racine; J. B. Pierce, Brodhead; E. H. Ramm, New London; and R. M. Burtis, Oshkosh, directors.

The Wednesday afternoon session was "Devoted to the Improvement of Credit Conditions Among Hardware Merchants." An address was made by Joseph M. Paul, credit manager, McDonald Brothers Company, Minneapolis, Minnesota, on "The Use and Abuse of Credits," followed by a discussion, "Special Credit Problems and How We Have Solved Them," by Theodore Burger, Sheboygan, and L. V. Ward, Glenwood City.

This was followed by the delivery of the president's message.

Salient Points from Address of L. C. Peck, President, Wisconsin Retail Hardware Association.

Every year is a period unto itself. This is specially true in Association work. Each cycle terminating in the Annual Convention may be reviewed independently and to some advantage; 1922 is no exception. It is worth while to give thought for a few minutes, to what has happened to the retail hardware business in this, the best state of the Union, during its passing, that we may benefit from its lessons taught, in the languages of failure and of success.

Much was predicted in 1921 of what 1922 would bring forth. Many were the prophecies, and few the fulfillments. Optimism runs rampant through the ages, and every period of depression adds recruits to the army of those whose lack of judgment and prejudice blinds them to every guide stone that shows the shortest way to business success. The shorter road looks longer and the apparent shorter one, with the windings ahead still invisible, is inviting and many travel it to arrive late at the goal.

Sane optimism tells us that at least business will not be worse, and that there is always the hope that it may get better. This anticipation is healthy and buoys the merchant up without exciting him to the adoption of unwise policies and the carrying out of plans that will retard his business progress.

The merchants in Wisconsin as a rule have "kept their head" in face of the much predicted "Wonderful Periods of Prosperity" that are always ahead of some men. Coming as these predictions often have, from men of high station



George W. Schroeder.

and of recognized authority, it is a credit to the stability of the hardware merchant that he has not been led to accept and believe.

Archer Wall Douglas says, "There is grim irony in those interesting fictions, written for public consumption which tell of how much more the farmer is receiving for his products than a year ago—unfortunate half truths which unknowingly reckon market quotations, as the basis of what the farmer actually gets."

Several times this year we had occasion to read statements emphasizing that the buying power of Wisconsin merchants, due to increased value in farm products, was 40 per cent greater than in 1921. Perhaps in dollars and cents there was a difference. We question the figure, however, as being correct. We are willing to grant some increase in the farmer's income, but what of the outgo? Is the ratio of the value of farm products to that of other products any nearer as a result, or has the steady tendency of prices of the things he has to buy so strengthened as to absorb most of this difference? Again, any added income would quickly be diverted from the channels of the retail trade by the overdue obligations of the farmer, and the banks would perhaps be the first to feel the effects from this prosperity called to the merchant's attention.

"It's better to be safe than sorry," and hewing close to the line of conservative business will leave the merchant farther along on the road. The anticipation of bigger volume of trade leads to increase in merchandise stocks, so often unnecessary, and to a looseness in credit methods, which are none too sound in the beginning.

So I am urging on you the conservatism that is backed by common sense, the optimism that says two and two make four and not twenty-two. Your business should be ever ready to spurt ahead when the road is smooth and ready to slacken up at the corners. You should buy with hesitancy and sell with enthusiasm. Easy selling is a thing of the past. Gaining the sales volume that you are going to need to keep down the ratio of your expenses, is going to be a man's size job. It is going to require of you a keener appreciation of the necessity of owning your merchandise at the right figure. Prices are being leveled up by competition that you have to meet. It is not a matter of choice with you. You have to sell at the same figure in order to get the volume. Now if you are forced to accept a selling price of a certain figure, is the merchandise on your shelves bought at a price that enables you to cover your *cost* of doing business, and a necessary *profit* out of the margin you receive?

You are going to be, therefore, confronted often with the necessity of knowing what you can afford to pay for your merchandise because of the established resale prices that you find almost on every mail order catalog page, and that become public property through the advertising of one perhaps more aggressive than you are yourself.

So we look back to our organization --to our own Association—for support. It is committed through its offices to lend every aid possible to its members, and judging it from its past records, we have every reason to believe it will function efficiently.

This year has brought out new services added with no deductions from the list of activities of the past. *Business analysis*, or an exhaustive study of any store, of its money making possibilities and of its methods, is offered. Many a store is not in harmony with itself, in every department. Money is being made in one place and lost in another. A coordination of its activities through such analysis will assure the merchant of a healthy growth and of a larger reward for his services.

Hardware store office management was dealt with from the Secretary's office by means of monthly study sheets covering every phase of office detail necessary in the well conducted store.

Over 700 merchants showed keen interest in this new feature, and will look eagerly forward to the new window trim book which will be produced for the members of this organization within the next few months. This book will be the first real help ever offered to the medium sized store enabling them to improve their show windows. Good windows mean greater sales at the smallest possible increase in expenses. This book should be looked forward to with the greatest interest by all.

The group meetings of the past year showed a noticeable increase in interest among those attending. Thirty meetings were scheduled and twenty-eight were held. By a rearrangement of districts, it will be found possible to cover the entire state with twenty-four meetings, thus releasing a part of our assistant secretary's time for other activities, such as the remodeling of stores, drawing of plans, special accounting service and numerous other duties requested of him by the membership.

The sale of accounting supplies showed a marked increase over other years, over 225 orders for supplies having been received at the Secretary's office during the year.

There has been a healthy increase in number of members who have availed themselves of the use of the departments for the auditing of freight bills and the collection of old accounts. Over 300 members were served in each instance, saving to our members several thousand dollars in old accounts and in errors found among their last year's freight bills.

Wednesday evening the exhibit halls were closed and the program given over to talks and pictures on interior displays, show windows and advertising copy by George K. Nitz, Green Bay, and B. Christianson, assistant secretary, Stevens Point.

On Thursday morning the program specialized on "Greater Sales and Advertising." Principal addresses were by Fred P. Mann, Devil's Lake, North Dakota, "Building a Business of a Half Million in a Town of Five Thousand," and "Sales Stunts We Have Tried," by E. W. Peterson, Florence.

Excerpts From Remarks of E. W. Peterson.

I will attempt to leave with you some thoughts I have gathered for the subject, "Sales Stunts I Have Tried."

Selling the idea first to myself.

Being punctual at my work. An example for the employed.

Selling "Quality" hardware.

"Quality" hardware builds good will. It adds prestige to your store.

Giving an unlimited guarantee and making good.

Getting the confidence of my competitor, giving him the same in return and being every inch a man.

Keep a hollering about the merchandise I have to sell. And a lot of sales are made to those who didn't get me the first time.

Every time I make a sale I ask myself, just what did I do in that particular instance to clinch the sale? Keeping that in mind and use it again and again. I am one of the sales force, not only the boss. Making my store the one people like to visit is a good sales starter. And many suggestions could follow to increase this interest for your patrons.

I have learned that some of you do not handle guns, ammunition or sporting goods. Those of you who do not are overlooking sure profits, not alone in sporting goods, but in other items of your stock which are benefited by the fact that more customers will go into a store through the magnetic power of a display of sporting goods.

Perhaps some of you have never taken up hunting, target shooting or any of the outdoor sports and do not feel sufficiently warranted in adding sporting goods to your stocks.

The tourist travel is increasing every year and there is some very good business to be secured if you grasp the opportunity of catering to the wants of this high-class trade by adding items to your stock they use in the outdoor life. Make displays during the travel season of the items that interest them. You will be surprised (if you have not already done so) at the extra sales that ring the cash register as a result of these sales stunts.

Showing a personal interest in the welfare of the farmer as well as in my neighbor in town.

Keeping close watch over the daily tabulation of my business.



P. J. Jacobs.



O. P. Schlafer.

Applying personality to every punch.

In all my sales stunts I have borne in mind the necessity of showing the article only on its merits, not exaggerating, but giving the plain facts in so far as I knew.

I have also borne in mind the necessity of a profit on sales and have worked to a successful end showing a plus sign rather than a minus sign.

Minus signs (or losses) are too easily made, but it requires tact to show a plus sign or profit.

Selling merchandise at a profit and still satisfying the customer is what constitutes in a measure the success of your business. That it is equally essential to have both the customer and the profit. Without the profit you cannot stay in business and without the customer you cannot make the profit. The secret of both lies in the one word service. But still there is more than selling. Buying merchandise at right prices I consider a necessary adjunct to sales stunts.

Carelessness in your purchase power is apt to spell carelessness in your selling power.

Thursday afternoon was essentially the "Buyers' Session," the dealers spending the afternoon with the exhibitors. The night session, with its question box on merchandising problems, "Dealing with Business Conditions Now and in the Future," was probably the most profitable period of the convention. "Economic Trends in Retailing" was the subject of an address by William Bethke, General Educational Director of La Salle Extension University, Chicago, which closed the session.

"The Town, the Farmers' Service Station," was the subject of a talk Friday morning by John H. Kolb, of the Department of Agriculture, University of Wisconsin. This was followed by an address by W. T. Stillman, Oshkosh, on "What the Retail Merchant Means to the Community."

Salient Points in Address of W. T. Stillman.

Do you ever stop to think just what we really mean to our Community? Are you a good citizen as well as a good merchant? Are you a man among men, who is willing to co-operate in any capacity in which your community needs your assistance? Are you taking advantage of every opportunity to grow, progress and co-operate, or are you just a merchant? To be truly successful, your community should know you as a progressive citizen, as well as a reliable merchant.

A retail merchant should belong to his Chamber of Commerce or some such business organization. It is not enough to merely belong, you should attend its meetings and be willing to take part in all its activities. You thus keep in touch with other business men, and new local problems, often gaining first hand information which may be of benefit.

We take too little interest in the politics of our town, leaving vital questions to be decided by others.

We should be interested in the schools, teachers and the education of our children, realizing the Board of Education needs the help of real business men.

Each and every Community offers its special problems, which you should help to solve as interested citizens.

Community Served Through Store.

Your store reflects your general attitude towards the community and now the problem is: how can you best serve the public through your store?

The duty of the retailer as set forth in the Report to Congress of the Joint Commission of Agricultural Inquiry is that he "performs the final function in the distribution of essential commodities and gives fulfillment to all preceding efforts by making merchandise available to consumers at the time, place and in the form required by them."

The retailer's true function is that of serving as a purchasing agent for his community; as such he selects and carries a reserve supply of merchandise to meet the requirements of the individual consumer.

When the retailer enters business he assumes the responsibility of performing a public function, namely: that of providing commodities and services to his community, economically and conveniently; and maintaining such environment as is necessary and desirable to the consumers who support him. If he fails in his responsibility and performs only as a distributing agent for a manufacturer, he ceases to be an economic factor in the community which he serves.

This recognizes the retailer as an employe of the public which has a right to demand that he render efficient and economical service at no greater cost than can be supplied by other channels of distribution.

The commission states that, "Rendering such service involves expense which must be borne by those benefiting from them." We realize that the public does and must pay for our expense of doing business, and it is our duty to keep this cost to the public as low as possible, by good buying, frequent stock turns and rendering the best of service.



B. Christianson.

In accordance with the way we serve, so will our business grow and we in turn will profit.

Meaning of Service.

Service really means to give more with each transaction than is expected or demanded. This explanation of the word is plain enough, yet it is a startling fact that many business men do not seem to understand clearly the interpretation or feel the necessity of its practice.

It sometimes seems that the most abused and overworked word in the language of business today is this word "Service."

Many merchants and advertisers do a great deal of talking about the amount and value of their so-called service, without really analyzing themselves or studying the needs of their customers.

Demand for Real Service.

In spite of all this, Real Service is still at a premium and is in greater demand today than it has ever been before. Are you the one that recognizes this need in your community, or are you allowing some competitor to take the lead? There has been developing recently a strong tendency to define selling as a process of rendering service. A person buys an article not alone for what it looks to be, but on account of the guarantee that is given with it.

The growing tendency of our business world in catering to the public needs, is by making a bond through Real Service rendered. This bond is a tie that holds and binds customers more than any other, it permeates the community, and as the community grows, so will our business.

When the Hardware Dealer commences to realize the important place he should occupy in the community, he then begins to analyze himself as a merchant, his co-operation with his sales force, his store methods and efficiency, and the part that he himself takes in the community. He thus finds out where he falls short, and how improvements can be made.

The retail merchant should so educate himself in hardware that he can give honest advice and helpful suggestions, at the same time being able to back them up with a real general knowledge of hardware and a specific knowledge regarding the particular lines he handles.

He should obtain all the information possible from salesmen, trade journals and market reports.

It is necessary that his stock should be purchased at right prices that will allow him to meet competition and in such quantities that will give rapid stock turn. As your stock turn increases, you will be able to sell on closer margins, giving your trade better value for the dollar, and that brings more business which means more profits.

Question box discussions occupied the attention of the delegates for the remainder of the Friday sessions. The program closed with an address on "How Hardware Dealers May Make More Sales," by Charles Henry Mackintosh, former president of the Associated Advertising Clubs of the World.

Election of Officers.

The election of officers resulted as follows:

President—George W. Schroeder, Eau Claire.

Vice-president—W. F. Stillman, Oshkosh.

Secretary-Treasurer—P. J. Jacobs, Stevens Point.

Executive Committee—E. W. Staadt, Milwaukee; D. A. Williams, Waukesha; Hugo Prange, Sheboygan, and E. W. Peterson, Florence.

B. Christianson, who has proven highly efficient as a field man and organizer and conductor of group meetings, was re-appointed Assistant Secretary.

Conventionalities

It is always a pleasure to attend the Wisconsin Convention. There does not appear to be any one who is bossing the job, but everything goes on as if the best kind of lubricant was applied to the wheels, and I am inclined to believe that "P. J." has something to do with it. Secretary Jacobs has an efficient staff and he lets them go ahead and do things, but he keeps his eagle eye on them—so the little annoyances that one sometimes meets at other places are conspicuously absent.

The exhibits were numerous and many of them very attractive and interesting.

Mr. and Mrs. "Bill" Laffin were there. First time I have met Bill's better half, and I don't blame him at all for joining the ranks of the benedicts. Both were busy telling about the new Tanbo finish registers of the Tuttle & Bailey folks.

My old friend, George Harms, was in town for a couple of hours to say "Howdy" to his staff in the show of the Meyer Furnace and Supply Company, where Harry Barrager, Hart L. Jackson, Sidney N. Pollock and Winn J. Mortimer showed the Weir and Warm Home furnaces and Handy pipes and fittings.

C. A. Shomo told all about the auto-disc wheels and axles of the Auto Wheel coasters.

J. G. Knodle, of the Hunter Hardware Company, showed an added feature of his Improved Master Heat Regulator, in the shape of an electric button switch which closes the check while firing the furnace.

J. J. Callaghan and W. J. Hanley had many visitors to whom they explained the new features of the Fox Sunbeam furnace and the fine selling helps furnished to dealers.

"Buck" Taylor and Jack Holmes presided over the handsome exhibit of the Premier Warm Air Heater Company. "Buck" received many congratulations on his recent appointment as sales manager. Mrs. "Buck," however, seemed to be quite as much an attraction as the furnaces.

"See the Arrow T—Combination Store Post," read a big sign pointing to the booth of the American Steel & Wire Company, where J. W. Patterson, Grant Phillips, Lon Hartle, Frank Geks and T. W. Leary received their many friends.

The Clark-Jewel Lorain oil burning cook stoves and gas ranges were shown in the booth of the Stove Dealers' Supply Company.

J. C. Berger had three of his salesmen with him to take care of



W. T. Stillman.

the friends of the Northern Corrugating Company, where he showed their galvanized gutters and other supplies for sheet metal men. J. J. Defnet, C. A. Boyden and J. A. LuMaye assisted him.

Mark P. Ohlsen, Secretary-Treasurer and General Manager of the Brillion Iron Works, believes in letting the world know where his plant is located. On the casing of the Brillion furnace he had a space cut out in the shape of the state of Wisconsin. All the railroad lines running through Brillion were shown by black strips of sheet iron and the relative position of Chicago, Milwaukee, St. Paul, Manitowoc, etc., thus indicating how easy shipments can be made. Incidentally, Ohlsen says that their Brillion furnace is going to be one of the best sellers in Wisconsin, Michigan, Iowa and Minnesota, where people appreciate good furnaces.

As a bridge player Harvey Manny is a good score keeper, but he must know more about furnaces and fittings than he does about "Auction," for he picked up several good orders, so that after all, he bears no ill-will to Ralph Blanchard, who, by the way also took ye scribe into camp Wednesday night.

Charlie Glessner, R. W. Menk, C. DeWitt Van Evera and Joe Goldberg were busy telling about the special features of Excelsior furnaces and fittings.

R. W. Blanchard, of Hart & Cooley register fame, circulated among his many friends. Milwaukee conventions would not seem right without "R. W."

W. L. Nesbit, C. A. Wesp, J. C. Rugraff and Mr. Stolzle had plenty to do with taking care of the many who wanted to look over the fine enameled ranges of the Karr Range Company.

The Rudy furnace exhibit was under the charge of F. S. Cole, the old-timer among the Wisconsin installers.

"Pop" Ross and W. M. Warren presided in the exhibit of The Henry Furnace & Foundry Company. "Pop" goes wherever he listeth and always finds someone who calls him "friend."

Lewis C. Swane, Wisconsin manager, and J. F. Kelly, sales manager, of the Culter-Proctor Stove Company, made things comfortable for their visitors who came to look at Lexington furnaces, stoves and ranges. Their array of easy chairs was always occupied.

The beautiful exhibit of the Milwaukee Corrugating Company was under the charge of "Col." Scheder, with A. H. Schmelzer, T. J. Evans, Al Swan and C. Willman as his efficient assistant greeters.

Harry W. Smith has picked himself a nice combination of range lines. He is selling Champion gas ranges, Hamilton-Hayes and Roesch enameled ranges, with sales offices at 587 Frederick avenue, Milwaukee. Harry is a good scout and knows the range business.

The Follansbee exhibit of Security stove pipes, elbows, oil stove ovens, milk and ash cans and tin plate was looked after by H. H. Wherry, A. L. Peterson and C. A. Williamsson. It was a fine showing of a fine line.

Harry Miller says that he won't take a back seat for anyone with his new line of Summit plain and enameled coal and combination ranges. In fact, he is inclined to admit that there are few others that are in his class. S. M. Schaefle and H. J. Hornsby assisted in demonstrating the many attractive features.

The New Process Lorain oil burning and gas cook stoves and ranges occupied a big space and made a fine appearance in the exhibit of the Morley-Murphy Hardware Company.

L. J. Hansen and M. J. Maier, of the Malleable Iron Range Company, explained to their many callers the important features of Monarch coal ranges and Paramount combination and gas ranges. The latter is a new line with the company.

W. R. Williams held forth with Theodor Emery in the exhibit of the Thatcher Furnace Company. D. E. Cummings, the Chicago manager, came up to help them out for a while. "Old Man" Williams sure is sold on Thatcher.

The beautiful Copper Clad malleable range with the "one-man base" had its many interesting features brought out very effectively by A. E. Kerscher, who also distributed pocket pieces that made one think he had just made a successful raid on the gold mint.

Bill Harms and J. J. Burgess, of the Rock Island Register Company, made their headquarters in the double booth of R. J. Schwab & Son's Company, the latter being represented by J. L. Loell, Charles Mertle, Alf Wussow and the one only "Pom" (A. G. Pomrening). Henry E. Schwab came in to see if the coal test they make to demonstrate the actual size of their firepots was being done right.

Darling gas, coal and combination ranges, made by the Indiana Stove Company, were displayed to good advantage in the big exhibit of M. F. Stellwagen, which was presided over by F. L. Beimborn and George Kunz. They sure looked pleased, but said that if Henry Karges had come up from Evansville they would have sold twice as much.

D. E. McCabe, assisted by J. M. Beech, E. M. Tyler and L. R. Taylor, had all he could do to take care of the friends who called at the large booth of the International Heater Company. Beech says that he is going to tell us about the way some furnaces are put in and how they ought to be installed. Glad to have you!

E. J. Hahn and Fred C. Schell had two big spaces—one in which the Titan furnace of the Standard Foundry & Manufacturing Company was shown, and the fine line of Renown coal, gas and combination ranges in plain and enameled types in the other. Roy Hunt came up Thursday to help book orders for Titans.

The exhibit of the Dunning Heating Supply Company was a very comprehensive one. First, there was their Kwik-Lok furnace pipes and fittings; second, a line of sidewall and floor registers; third, the Success steel furnace; fourth, the Majestic Duplex registers; fifth, a line of cast furnaces. E. E. Dunning was assisted by G. F. Levzow and R. O. Aton. L. G. Colburn with W. T. Somers and B. Drow, of the Success Heater & Manufacturing Company, and M. R. Ransburg and A. E. Zilisch, of the Majestic Company, also made their headquarters here.

"Doc" (Fred S.) Hynds and A. F. Wood, of the Lennox Furnace Company, told all about the Torrid Zone furnaces and how they make Jack Frost go 'way back and sit down.

A. M. Rawlings and W. O. Ward had many admiring visitors to their exhibit of Quick Meal coal, gas, combination and Lorain oil burning cooking stoves and ranges. Those red wheels certainly draw attention.

J. Swoboda, of the Utica Heater Company, had a fine exhibit, and when he got a prospect really interested he gave him a real demonstration of the smoke consuming and hot blast device on their Super-Smokeless furnace, and he says that invariably the test makes the sale. Albert F. Hem, Chicago manager of the company, came up to help him take care of the crowd.

W. J. Pettee Gives Oklahoma Hardware Dealers Valuable Hints in Building Up a Big Business.

Successful Southwest Merchant Urges Complete Stocks, Well Displayed; Firm Credits; Fullest Insurance on Goods.

THE experiences, and sage counsel and advice resulting therefrom, of a hardware merchant whose 33 years in business has built up one of the largest establishments in the Southwest, were given to the members of the Oklahoma Hardware and Implement Association at their annual convention in the Auditorium, Oklahoma City, Oklahoma, January 31 and February 1.

The speaker was W. J. Pettee, of Oklahoma City, president and treasurer of the hardware firm which bears his name. Mr. Pettee picked out the salient points of his experience, and stressed them to the members in the following words:

Excerpts from Address of W. J. Pettee.

In my career in Oklahoma I have had the experience, pleasure, trials and tribulations of running a country hardware and implement store, where for many years most all of the business was in the implement, harness and vehicle game, and I have also had the pleasure of running a large hardware store, where the trade was very much different from that during any of my earlier years.

The hardware business of the present day does not consist in a few dozen pairs 3x3 cast butts, rim locks, strap hinges, picks, shovels, and a few tin wash basins, as it did when I first became interested in the game. Today an up to date hardware man, even in the smaller communities, carries many lines

of goods, that in the earlier days he would be called a "Trade Pirate" for so doing. Today one of the secrets of a successful business, in my opinion, is selling as many good lines of merchandise as your room and capital will allow, for the more merchandise can then be sold with practically the same overhead expense.

Opposes Large Lot Discount.

Right here and now, I wish to state that I do not believe in the extra 5 per cent that is often given by jobbers and manufacturers for quantity purposes. I have myself, and many other dealers, over-bought in order to get this little extra price, and from the experience I have had, it does not pay. Let us buy goods in smaller quantities and oftener.

While no one in the business kicks more than I do when I find myself out of some article that I should have, you remember we can not sell all the goods; for if we did we would soon have no competition. While that sounds mighty fine, I am afraid we would dry up and blow away.

Another thing that I have tried to do, and which I think I have done reasonably well, is to get a good line of merchandise and stick to it; and it is one of the pleasures I have, in looking over my ledger, to note the number of jobbers and manufacturers with whom I have done business continually since the early days of 1889. I very seldom make a change of any line to another line, just because some smooth tongued young salesman almost, if not quite, convinces me that his line was better, because, believe me, manufacturers do not allow another manufacturer to put anything over them in the way of improved merchandise for any great length of time.

And I believe that such articles as a range, washing machine, sweeper, or other similar articles, sold to one person in a neighborhood half sells a good portion of the rest of that neighborhood; and the dealer who is continually changing his line certainly does not have the assistance from his consuming customers that he would have if he did not make these changes. I have found in my own experience that a woman will brag on her washer or her range and a farmer will brag on his plow or wagon, and all of this tends to increase sales.

For a man who has done the business I have in this line for the last thirty-three years in Oklahoma, I have probably done as large a portion of credit business as the average merchant, and I know with the amount of credit business done my losses have been very small.

The system I have used in my credit business has been, if I could not collect an account in a reasonable length of time I got a note for it; and if a man who made a note could not pay it, I did not just extend that note, and tell him that was all right, but I got a new note, and if possible, a little cash, at least the interest.

And I have found that this pays. A man thinks a heap more of paying a note than he does an account, and he thinks more of paying a note coming due than he does one that is past due. Because from the fact that he has failed to pay his past due note or the old account his responsibility, in his own mind, is very much lessened, and he is liable to make you carry the same for a long, long time, and then get sore when you force him to pay. This, to say nothing of the fact that while he owes these past due accounts he very often forgets to come in; but let him pay up once and he again is your friend and customer.

I am a firm believer, in so far as possible, of taking the people who work for you, to a very large extent, into your confidence, endeavoring to make them feel that they are a part of the business, even if they have no financial interest in same except drawing their pay, and I will say it has worked very well for me.

Reads the Trade Journals.

I am a reader of the trade journals, and get the leading ones on my desk every week, or month, as the case may be, and I am perfectly frank to say that I read them all, from "Kiver to Kiver," advertising and all, and have gotten from them a great many ideas that I believe have helped my business.

I certainly recommend to all in the game that they read these trade journals, particularly the National Hardware Bulletin, the official publication of the Association. You will certainly get inspiration from some of the well written articles that will very much aid you in the conduct of, and be profitable in your business.

I am aware that the country hardware dealer, for the past three years, has had pretty *hard picking*, and when I say *hard picking*, I know what *hard picking* is. The dealer who has stood the adversities of the several years past is surely going to come into his own in the very near future. One good crop in Oklahoma sold at a fair price, and *I believe we will not only have the crop but will have the fair price*, is going to mean a great deal of difference in our trade, and particularly in those communities that I term country communities.

The farmers have bought very little for the past several years, and he is out of stock, particularly hardware, implements, housefurnishings, etc., and when he gets this one crop and fair price for same you will see your business coming back to as palmy days as you have ever had.

Let me just here say a few words about the women in connection with the hardware business. I believe it has been estimated that eighty per cent of the customers we have are women. This, I can not vouch for, but do know that any store that caters to the trade of the women certainly increases its output and the quality of its business. The more good merchandise you can have in your store, in proportion to its size, that interests the women the very much better trade will you have.

Nearly all goods sold for the use of women from a hardware store bear a very fair profit, and pushing to the front all articles in your line that appeal to the women, to say the least, will make a great advertisement for your business, and materially help your income figures at the end of the year.

In my own store we consider the trade and good will of the women one of the biggest assets that we have.

I would like to say a few words regarding keeping the stock well insured. I have been somewhat of a "crank" in my life in this regard. I have paid insurance a good many years, and so far as I know, have never collected anything up to this time. But most of us have the large part of our eggs in one basket, and can not afford to not have them well insured.

I have always been a supporter of Mutual Hardware Insurance, and for several years have carried, through the agencies represented by your secretary, as large an amount of this insurance as the companies would take of my business, and I have found returns in reduced premiums and rebates very satisfactory.

Nebraska Hardware Dealers Told Business Again Is on Solid Basis.

President S. R. Derryberry Tells Omaha Convention Brain and Work, Applied Together, Will Produce Profits.

MEMBERS of the Nebraska Retail Hardware Association, who foregathered at the Rome Hotel, Omaha, for a three-day intensive study and analysis of trade problems, February 6, 7 and 8, returned to their homes, in the words of President S. R. Derryberry, "full of enthusiasm and renewed determination to make more of a success of our business than we have ever done in the past."

It was the twenty-second annual convention of the organization, and reflecting the rising tide of business Nebraska hardware dealers were present in large numbers. Second only to the interest of the convention itself was the exhibit of hardware. This exposition was at the Auditorium.

The convention opened Tuesday morning, the address of welcome being delivered by Mayor James C. Dahlman. The response was by F. W. Ebinger, Plainview. The presentation of the gavel was by Edward Lehmkuhl, Wahoo, after which President Derryberry delivered the annual address.

Excerpts From Address of President S. R. Derryberry.

We have all learned a lot of things about business in 1922 that we never knew; we have learned that we had to actually go out after business, to work and fight harder for business than we ever did in our lives. We learned that we had to buy conservatively, to buy in smaller quantities and to buy often; indeed this has been a good lesson for us

creased our turnover and turnover is for in spite of ourselves we have in one of the most vital points in business, second, we believe, only in volume. And just here we are very glad to note business is on a firmer basis than it was when we met one year ago.

The pendulum of business is hovering at or near that new normal mark which last year's progress (the progress of 1922) has established. That pendulum is never still, careful examination of conditions in every section of the country indicate that the upward swing of prices and production has not yet reached its height, and its momentum bids fair to carry it on for some time to come. Any swing back will be at that same steady pace as the advance has been will probably be confined within the same well regulated limits. When the year 1922 opened, scarcely an industry in this country was operating on a normal capacity basis; many plants were closed entirely. Many concerns had written off or absorbed high priced inventories but others still had goods they could not move which was clogging their advance.

But in the second quarter of the year, the demand for merchandise began to improve materially. Merchants either wrote off their losses or averaged and ironed out their inventories by the movement of goods which they had bought at cheaper prices. Buying was conservative but steady and the demand increased proportionately, and as a result, at this the beginning of the first quarter of 1923, the great basic industries of the country are operating in many cases close to capacity and the greater number of them have orders on their books which will keep them busy for months to come.

Three great strikes marked the course of business during 1922. The textile strike, the coal strike and the railway shopmen's strike. Great as was the depressing influence of these wage disputes on commerce and industry, their results were not entirely disastrous. For more than once during 1922, business was poised for flights toward inflation. It is possible that these labor controversies acted as a brake against too rapid advance and resulted in a steady and healthy improvement, free from the danger of acute relapse.

So now that business is again on a solid basis, after we have enjoyed this convention and gotten all the good out of it we possibly can, may we return to our own home towns full of enthusiasm and renewed determination to make more of a success of our business than we have ever done in the past. For after all it is a fact that the main reason we are in business is to make money and make a success and if we make a success we must make money.

Using the words of another, let us remember that the greatest money making machinery in the world is not found in Henry Ford's mammoth plants at Detroit, in Rockefeller's oil refineries, in the Steel Corporations in the throbbing city of Gary, or in any or all of the colossal General Motors factories. The greatest money making machinery in the world weighs only a few ounces and thank the Lord it has been given to us all. It is the human brain.

So when we are using this human brain to make a success, let us remember that success is made up of four ingredients: Inspiration, Aspiration, Desperation and Perspiration, but the greatest of these is Perspiration.

"Business and Association Vision" was the topic of an address by Rivers Peterson, Argos, Indiana.

Addresses were delivered Wednesday as follows: "Overhead Expenses of Retail Hardware Stores in Nebraska," Paul A. Anderson, University of Nebraska; "Jobber Competition" by George O'Malley, Greeley, and "Who Do You Consider Legitimate Hardware Dealers?" M. D. Hussie, Omaha.

Ralph B. Wilson, Babson's Statistical Organization, discussed the "Business Outlook for 1923," on Thursday.

The event of the closing session was the organization of the Omaha local of Sheet Metal Contractors, under the auspices of the National Sheet Metal Contractors.

Anchor Brand Wringers at August Price List.

On January 29, 1923, the Lovell Manufacturing Company announced new prices, but owing to a change in the crude rubber situation, this new list has been withdrawn, and the prices established August 21, 1922, have been re-instated.

The Test of Credit Is Its Liquidating Power.

This is the era of credit. It is amazing how the use of credit and credit instruments has grown since the industrial revolution a century and a half ago and what a necessary part credit is playing in domestic and world trade, writes J. H. Tregoe, Secretary-Treasurer, National Association of Credit Men.

Familiar things are usually taken as they are and receive but little study. It is so with credit. Credit has become a part of our daily lives interwoven into our trade. This very familiarity with credit has been, probably more than anything else, the reason why we have not questioned very much what credit is.

Credit, the invisible element in man's relations, has much to do in building up a prosperous nation; the misuse of credit causes great damage—that fact can not be too greatly stressed. A better understanding of credit is therefore essential. If the proper use of credit is of the utmost importance to our individual and social happiness and prosperity, is it not imperative that it be better understood especially by the men who deal in credit affairs.

Now the test of the goodness of credit is its liquidating power. Will the credit be extinguished according to the contract upon which it rests? That is the question. This liquidating power involves many elements, and careful appraisal of these elements is the important credit task. These credits involve the willingness and the ability of the promiser to redeem or extinguish the credit. This question should always be asked when a credit is under consideration: "Will or can it be liquidated according to contract?"

To gather the various elements together necessary to answer this question, to study them closely and reach a sound determination is no mean task. It is a task of importance because upon the wisdom or unwisdom of creating the credit depends the profit or the loss. Every sound credit enters into the sum total of our commercial transactions from which is derived more capital or wealth for the Nation; every unsoundly created credit tends to fritter away the existing wealth and capital of the Nation.

Moses Calls U. S. the Region of the Regulated.

George Higgins Moses, U. S. Senator from New Hampshire, is a Republican of the conservative type and not given to "viewing with alarm." Yet Senator Moses protests against the vast and expensive governmental machinery we have built. "There was a time when this was the land of the free;" he says, "now it is the region of the regulated."

There are men who wouldn't dare to read the declaration of independence to their wives.

Suggestions and Plans for Window Displays.

Instructive Examples from Exhibits in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

Kitchen Baking Scene Display Sells Ranges.

A window that was "different" and one also that sold the goods was put on by the W. J. Pettee & Company, hardware merchants of Oklahoma City, Oklahoma, being designed by Mr. E. Reardon as shown in the accompanying photograph.



"Cooking Demonstration" Window Display Designed by E. Reardon for the W. J. Pettee and Company, Oklahoma City, Okla homa.

This window should furnish worth while suggestions to the merchant who has found how attractive window trims, properly designed, help to move the goods. Examine this tasty display of ranges and kitchen ware, set up as a scene in the kitchen baking day, which Mr. Reardon describes as follows:

"The panels of this window were done in an old rose, the permanent background being in pearl gray. The flower decorations were modern art rose trees of green foliage and rose buds in various shades.

"In the center of the display was placed the figure of a woman, appropriately attired in a white kitchen apron and adjusting the Lorain Oven Heat Regulator.

"Beside her was placed a small table, and on it various accessories and articles used in baking. Distributed throughout the window were a number of nicely browned loaves of *real* bread and rolls to illustrate what the ranges would actually do.

"White enamelware was placed on the ranges to add a touch of realism.

"This window resulted in large sales in *both ranges and kitchen utensils.*"

The window shows initiative and creative ability. Mr. Reardon fails to mention the use of the window card and the other literature, which may be observed in the illustration. They are an essential part of the window display.

After the Convention, Plan the Winning Window.

While attending your hardware convention you will have many opportunities to get ideas for your window trim. When you return home follow up the inspiration of the addresses and contacts you made by setting up a winning window design and enter it in AMERICAN ARTISAN annual window design contest. Remember the rules and that the window may be made up of any of the following:

General hardware, machinists' supplies, builders' hardware, automobile supplies, sporting goods, fishing tackle, house furnishings and paints, cutlery, dairy supplies, stoves, ranges, warm air heaters, sheet metal and kindred lines.

Photograph the window and then send the photograph, together with description of how the window display was arranged and the materials used by mail or express, charges prepaid, so it will reach this office *not later than April* 1, 1923.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be placed within a sealed envelope containing the real name and address of the contestant, this

sealed envelope to be enclosed with the photograph.

AMERICAN ARTISAN AND HARDWARE RECORD reserves the right to publish all photographs and descriptions submitted in the contest.

Four prizes, totaling $100, are to be awarded for the entries adjudged the most meritorious. These are: first prize, $50; second prize, $25; third prize, $15, and fourth prize, $10.

Don't Make Salesmen Wait; Figures Show It Is Costly.

"Buyers who force salesmen to cool their heels outside their offices increase the annual cost of distribution by more than $100,000,000,'" said Charles Henry MacKintosh in an address before the Exeeeutive Club of Chicago recently at the Hotel Sherman. "When labor efficiency standards are applied to selling manufacturing profits will increase."

Coming Conventions

Pennsylvania and Atlantic Seaboard Hardware Association Convention and Exhibition, Philadelphia Commercial Museum, Philadelphia, Pennsylvania, February 12, 13, 14, 15 and 16, 1923. Sharon E. Jones, Secretary, 1314 Fulton Building, Pittsburgh, Pennsylvania.

Ohio Hardware Association Convention and Exhibition, Cleveland, Ohio, February 13, 14, 15 and 16, 1923. Exhibition in the new Municipal Hall. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

Illinois Retail Hardware Association Convention and Exhibition, Hotel Sherman, Chicago, Illinois, February 13, 14 and 15, 1923. L. D. Nish, Secretary-Treasurer, Elgin, Illinois.

Iowa Retail Hardware Association Convention and Exhibition, Des Moines, Iowa, February 13, 14, 15 and 16, 1923. A. R. Sale, Secretary, Mason City, Iowa.

Sheet Metal Contractors' Association of North Carolina, Selwyn Hotel, Charlotte, North Carolina, February 14 and 15, 1923. George I. Ray, Secretary, Charlotte, North Carolina.

North Dakota Retail Hardware Association, Grand Forks, North Dakota, February 14, 15 and 16, 1923. C. N. Barnes, Secretary, Grand Forks, North Dakota.

Minnesota Retail Hardware Association, Duluth, Minnesota, February 20, 21, 22 and 23, 1923. H. O. Roberts, Secretary, 1120 Metropolitan Life Building, Minneapolis, Minnesota.

New England Hardware Dealers' Association Convention and Exhibition, Mechanics' Building, Boston, Massachusetts, February 21, 22 and 23, 1923. George A. Fiel, Secretary, 10 High Street, Boston, Massachusetts.

New York State Retail Hardware Association Convention and Exposition, Rochester, New York, February 20, 21, 22 and 23, 1923. Headquarters, Powers Hotel. Sessions and Exposition at Exposition Park. John B. Foley, Secretary, City Bank Building, Syracuse, New York.

Indiana Sheet Metal Contractors' Association, Terre Haute, Indiana, February 21 and 22, 1923. Leslie Beach, Secretary, Richmond, Indiana.

Michigan Sheet Metal and Roofing Contractors' Association, Bay City, February 26, 27, 28 and March 1, 1923. Frank E. Ederle, Secretary, 1121 Franklin Street, S. E., Grand Rapids, Michigan.

Missouri Retail Hardware Association Convention and Exhibition, Marquette Hotel, St. Louis, Missouri, February 27, 28 and March 1, 1923. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis, Missouri.

Iowa Sheet Metal Contractors' Association, Sioux City, Iowa, March 14, 15, 1923. R. E. Pauley, Secretary, Mason City, Iowa.

Wisconsin Sheet Metal Contractors' Association, Republican House, Milwaukee, Wisconsin, March 14 and 15. Edward Hoffman, Secretary, 279 Lake Street, Milwaukee, Wisconsin.

Illinois Sheet Metal Contractors' Association, Decatur, Illinois, April 4 and 5, 1923. Fred Gross, Secretary, Quincy, Illinois.

National Warm Air Heating and Ventilating Association, Cleveland, Ohio, April 18 and 19, 1923. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

American Hardware Manufacturers' Association, Spring Convention, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. Frederick D. Mitchell, Secretary - Treasurer, 1819 Broadway, New York City.

Southern Hardware Jobbers' Association, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. John Donnan, Secretary-Treasurer, Richmond, Virginia.

Old Guard Southern Hardware Salesmen's Association, Windsor Hotel, Jacksonville, Florida, April 25, 1923. R. P. Boyd, Secretary-Treasurer, R. F. D. 4, Knoxville, Tennessee.

Hardware Association of the Carolinas, Columbia, South Carolina, May 8, 9, 10 and 11, 1923. T. W. Dixon, Secretary-Treasurer, Charlotte, North Carolina.

Arkansas Retail Hardware Association, Marion Hotel, Little Rock, Arkansas, May, 1923. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock, Arkansas.

Southeastern Retail Hardware and Implement Association, covering Tennessee, Alabama, Georgia and Florida. Auditorium Armory, Atlanta, Georgia, May 15, 16, 17 and 18, 1923. Walter Harlan, Secretary-Treasurer, 701 Grand Theater Building, Atlanta, Georgia.

National Retail Hardware Association, Richmond, Virginia, June, 1923. Herbert P. Sheets, Secretary-Treasurer, Argos, Indiana.

The National Association of Sheet Metal Contractors, St. Louis, Missouri, June 25 to 29, 1923. E. B. Langenberg, Secretary, 4057 Forest Park Boulevard, St. Louis, Missouri; E. L. Seabrook, 608 Chestnut Street, Philadelphia,, Secretary.

Missouri Sheet Metal Contractors' Association, Statler Hotel, St. Louis, Missouri, June 25, 1923. Otto E. Scheske, Secretary, 3818 Maffitt Avenue, St. Louis, Missouri.

Retail Hardware Doings

Colorado.

The Lee Brothers' Cash Hardware Company has started in business at 815 Ninth street, Denver.

Georgia.

The Hardy Hardware Company of Athens has opened a branch store at that place at 343 Broad street. This store is under the management of T. W. Murray.

Illinois.

At Saybrook E. Rauscher has sold his hardware store to H. D. Stine, and the two stores will be consolidated.

The Price-Plotner Hardware Company of Danville has been incorporated with a capital of $25,000. Incorporators are: Everett L. Price, Charles G. Plotner, Alice E. Price and Lola Plotner.

John McBride has sold his hardware stock at Macomb to is son, Harry, and Harry's brother-in-law, Mr. Murfin.

Frank Nelson and James Fenwick have taken over the hardware store at Hoopestown, belonging to the late A. L. Spradling.

The Jared Hardware store of Prairie City has been sold to Kingsland and Willard.

Ed Nay has purchased the hardware store of Emery Cox at Marshall.

The hardware store of A. P. Hubbell, 1030 Hale avenue, Blue Island, has been sold to J. L. Pahlke and C. G. Rvstrand.

A. W. Moore Company, 208-210 West Main street, has been incorporated with a capital of $25,000. Incorporators are: W. I. Saffell, T. B. Thornburn and George Taylor.

Michigan.

A. B. Van DeMark has sold his hardware store at Clinton to his son, Fred Van DeMark.

Minnesota.

R. E. Kennedy has sold his hardware store to E. T. Thorson, who moved the stock to Hardwick.

H. A. Lehmann has opened a hardware store at Henderson.

At Hackensack, fire destroyed Bert Hardy's hardware store.

Missouri.

A. J. Roberts and Sons have sold their hardware and implement business at Holden to Hubert and Earl Little and C. F. Scarcliff.

C. L. Prow is now sole owner of the Sikeston Hardware Company at Sikeston.

Montana.

At Plentywood, fire destroyed the Kelland Strand Hardware Company.

Ohio.

The P. C. Hawk Hardware store of East Palestine, which was damaged by fire, has reopened with new stock.

South Dakota.

The Salem Hardware Company of Salem has sold out to W. E. Kinney and L. McMahon.

Review of Conditions in the Metal Markets.

General Situation in the Steel Industry. Report of Prices and Tendencies in Sheet Metals, Pig Iron, etc.

Non-Ferrous Metals Prices Highest in Several Years.

The past week has seen prices in the metal markets fairly active.

Copper, lead and tin have been selling at the highest levels since the autumn of 1920, while zinc recently experienced a quick recovery to 7 cents, East St. Louis. The Ruhr valley occupation has had no perceptible influence in the markets, as domestic consumption has been at a rate sufficiently high to keep producers busy. Some Spanish lead has been sold here which otherwise would have gone to Germany, but not enough to have a marked effect.

Germany has bought some good-sized tonnages of copper despite the economic struggle now in progress. France, Great Britain and Italy also have been buying moderately of American copper.

Copper.

Electrolytic copper prices advanced from 14.87½ cents to 15 cents, delivered, Jan. 29, and some agencies have taken spot business at 15.12½ cents, delivered. Both wire mills and brass mills have been doing a large business, January being one of the largest months on record in point of new copper wire bookings.

Many large utility projects are going forward. Foundry activity keeps up and consumption of casting copper and composition ingot is heavy. Casting copper sold as high as 14.60 cents, refinery. Lake copper advanced to 15.12½ cents, delivered.

Exports from the United States last week were the largest in many weeks, 4,230 tons, of which 1,965 tons went to Germany, 1,435 tons to France, 430 tons to England, 300 tons to Sweden and 100 tons to Belgium. In the last four days of January foreign shipments from this port were 2,945 tons. On Friday the first outgo in February was 1,285 tons, while today exports from New York were 2,305 tons, largely to England, making February outgo to date 3,590 tons.

Zinc.

A little slab zinc has been sold for export recently and domestic brass mills and galvanizers have bought fair tonnages. Prime western advanced to 7.15 cents, East St. Louis, by Jan. 30, then reacted to 7.05 cents.

The increasing production has been the source of anxiety to some smelters, who have competed sharply for forward business, but labor is imposing a limitation on output.

February shipment appears to be in a narrow position, though this has been so generally advertised that it may be more apparent than real, and there may be some reserving going on.

The offerings, at any rate, are not plentiful, and this has tended to sustain the market despite a slight decline abroad.

Lead

Some large business has been done in lead in the outside market. Prices advanced as high as 8.15 cents, East St. Louis, which is above the actual New York market, disregarding the 35-cent freight rate from St. Louis to New York. This condition is due to the offering of Mexican and other foreign lead at New York for eastern delivery. Supplies continue tight.

Tin.

Tin deliveries in January in the United States amounted to 6,625 tons, one of the largest months on record. The world visible supplies increased slightly during the month, however, due to large Straits shipments.

The United States Steel Corporation is reported to have made large shipments from the Straits in late January. Straits tin prices have ranged between 39.87½ cents and 40.50 cents the past week. Ninety-nine per cent grades have been about 1 cent under Straits.

Solder.

Chicago warehouses quoted solder prices as follows: Warranted, 50-50, per 100 pounds, $27.00; commercial, 45-55, per 100 pounds, $25.50; and plumbers', per 100 pounds, $24.25.

Sheets.

Higher prices on steel sheets will be announced by Inland Steel Company about Feb. 12 to 15, applying on second quarter tonnage, which will be allocated at that time among regular customers. It is not known how much increase will be made, but $2 to $3 per ton is considered inevitable. At the same time the spread of galvanized over black may be made greater than $1 which has prevailed, as a result of the high price of spelter. Users generally are in need of more sheets than their contracts with Chicago mills will supply them, and are buying in the East. Lately they have experienced difficulty in placing business there as mills have filled up.

Tin Plate.

Specifications on tin plate continue heavy, although new orders are limited. While occasionally a block of new business develops for oil or general line cans, or for food container tin plate, the bulk of shipments from now on until well into the second quarter will be on contracts.

Large tonnages are going West for fish, fruit and vegetable packs which this year will be abnormally large. Relatively small tonnages, however, are going via all-rail routes because of the much lower freight rates by rail and water via Baltimore. For instance, out of a total of 3,000,000 base boxes sched-

uled for shipment to the West coast territory this year perhaps 60,000 are routed "all-rail."

The contemplated rate reduction on March 7 from $1.20 to 75 cents from Chicago to the West coast will not greatly aid the situation since the rail and water route even with extra costs for packing aggregates 70 cents. The standard price continues $4.75 per base box, 100 pounds, Pittsburgh.

Wire and Nails.

Demand for wire and nails continues strong and the leading maker in the Chicago market continues to take on business only in proportion to previous buying by various customers, in order to distribute its production as widely as possible. Operation is at the same mark as has prevailed for the past several weeks. Prices are strong and unchanged.

Recent adjustments in the Pittsburgh wire products market have not curtailed orders or specifications and most makers are filled up with business well into April. Where output is not obligated for the entire first quarter, the remainder is reserved for regular customers. Demand still is so heavy from manufacturers and jobbers that mills are unable to collect stock backlog which ordinarily they hold back for spot demand in the spring and summer.

All of these will have to be met from current production. As stated last week, the leading interest and independents are on the same basis as regards plain wire, 2.55 cents; annealed wire, 2.70 cents; and galvanized wire, No. 9 gauge, 3.15 cents, base Pittsburgh, although on nails it continues to name 2.70 cents, or $2 per ton below the independents, who are quoting 2.80 cents, base Pittsburgh.

Wire departments cannot run full because of the shortage of wire drawers which still exists.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, $18.00 to $18.50; old iron axles, $24.00 to $24.50; steel springs, $20.50 to $21.00; No. 1 wrought iron, $16.50 to $17.00; No. 1 cast, $18.50 to $19.00, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9¾ cents; light brass, 5¾ cents; lead, 6 cents; 15 cents. The demand for nearly all lines is heavy.

Bolts and Nuts.

Excellent inquiry for prompt delivery bolts and nuts is being received by makers, who are forced to turn down much of it. Deliveries are slowing up somewhat and users are finding difficulty in obtaining as much material as they need. Prices are strong, but have not been advanced, though an upward change is expected before second quarter business is taken.

While buying of nuts, bolts and rivets by railroads and railroad equipment interests continues, present buying in the Pittsburgh territory is more or less general. Orders are being received from various manufacturing lines. Jobbers continue to order from time to time. Heavy consumption is expected with the coming of spring and summer and jobbers all wish to be equipped with well-balanced, if not heavy, stocks.

Building Steel Demand Causes Record Tonnages For Some Producers.

Pig Iron Market Quiets Down With Chicago Furnace Quoted Around $29.50

DEMANDS for building steel are keeping active, with some producers reporting the heaviest tonnage in their history. Lettings this week were 31,773 tons, the principal contract being 6,500 tons for the Cadillac Hotel, Detroit. Oil tank awards have contributed 15,000 to 20,000 tons of new business this week.

The pig iron market has quieted down, though scattered buying for second quarter is continuing. Neither producers nor consumers are disposed to push forward business, especially with a softer coke market. Valley basic shows an erratic price condition, with small sales this week at $25.50.

Buying of pig iron for second quarter delivery in the Chicago district is increasing. It is entirely voluntary on the part of consumers, as producers are not pushing sales. The total second half iron booked as yet is not equal to half the production of furnaces here. Orders are being booked for first quarter, second quarter and for the period of February to July. On this business the quotation is $29.50, Chicago furnace, although on some spot tonnage $30 has been obtained. In a few instances inquiries for third quarter have been put out, one from a stove manufacturer. This indicates need for iron through the year.

A malleable melter at Chicago has covered 3,000 tons of malleable iron and 1,000 tons of foundry iron for second quarter. Other sales are of usually smaller tonnages. Inquiry includes 1,000 tons each of foundry iron for a Michigan and an Illinois melter and lots of 200 to 500 tons from various sources. Inquiry is being placed promptly.

More activity is appearing in silveries, with prices steady and no large buying. Low phosphorus iron is quiet at $37, Chicago, with little demand. Imported iron is not arriving promptly for those who bought from that source. Little activity is noted in Lake Superior charcoal iron, which is steady at $30, furnace.

Some disturbance is being created by sales of malleable iron under the general level, the source of which has not been traced. Sellers adhering to the regular quotation have consistently lost business to an unknown seller with a lower figure.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON.

Chicago Foundry	29 50 to 30 00
Southern Fdy. No. 2	30 01 to 31 01
Lake Sup. Charcoal	33 15
Malleable	29 50 to 30 00

FIRST QUALITY BRIGHT TIN PLATES.

		Per Box
IC	14x20 112 sheets	$10 00
IX	14x20	11 25
IXX	14x20	12 60
IXXX	14x20	13 90
IXXXX	14x20	15 25
IC	20x28	20 00
IX	20x28	22 50
IXX	20x28	25 20
IXXX	20x28	27 80
IXXXX	20x28	30 50

COKE PLATES.

Cokes, 180 lbs.	20x28	$11 80
Cokes, 200 lbs.	20x28	12 00
Cokes, 214 lbs. IC	20x28	12 35
Cokes, 270 lbs. IX	20x28	14 10

BLUE ANNEALED SHEETS.

Base ..... per 100 lbs. $4 00

ONE PASS COLD ROLLED BLACK.

No. 18-20 per 100 lbs.	$4 65
No. 22-24 per 100 lbs.	4 70
No. 26 per 100 lbs.	4 75
No. 27 per 100 lbs.	4 80
No. 28 per 100 lbs.	4 85
No. 29 per 100 lbs.	4 95

GALVANIZED.

No. 16 per 100 lbs.	$5 10
No. 18-20 per 100 lbs.	5 25
No. 22-24 per 100 lbs.	5 40
No. 26 per 100 lbs.	5 55
No. 27 per 100 lbs.	5 70
No. 28 per 100 lbs.	5 85
No. 30 per 100 lbs.	6 35

BAR SOLDER.

Warranted.
50-50 ..... per 100 lbs. $27 00

Commercial
45-55 ..... per 100 lbs. 25 50
Plumbers .... per 100 lbs. 24 25

ZINC.

In Slabs 8 50

SHEET ZINC.

Cask lots, stock 10¼c
Less than cask lots 10¾c

COPPER.

Copper Sheets, base 21¾c

LEAD.

American Pig $9 25
Bar 10 25

Sheet.
Full Coils ..... per 100 lbs. 11 85
Cut Coils ..... per 100 lbs. 12 60

TIN.

Pig Tin 43c
Bar Tin 46c

HARDWARE, SHEET METAL SUPPLIES, WARM AIR HEATER FITTINGS AND ACCESSORIES.

ADZES.

Coopers'.
Barton's ..... Net
White's ..... Net

AMMUNITION.

Shells, Loaded, Peters.
Loaded with Black Powder 18%
Loaded with Smokeless Powder 18%
Winchester.
Smokeless Repeater Grade ..... 20 & 4%
Smokeless Leader Grade ..... 20 & 4%
Black Powder ..... 20 & 4%
U. M. C.
Nitro Club ..... 20 & 4%
Arrow ..... 20 & 4%
New Club ..... 20 & 4%
Gun Wads—per 1000.
Winchester 7- 8 gauge 10&7½%
" 9-10 gauge 10&7½%
" 11-28 gauge 10&7½%

ASBESTOS.

Paper up to 1/16 ..... 6c per lb.
Rollboard ..... 6½c per lb.
Millboard 3/32 to ⅛ ..... 6c per lb.
Corrugated Paper (250 sq. ft. to roll) .... $6.00 per roll

AUGERS.

Boring Machine ..... 40&10%
Carpenter's Nut 50%
Hollow.
Stearns No. 4, doz. $1150
Post Hole.
Iwan's Post Hole and Well 25%
Vaughan's, 4 to 9 in. $15 60

AWLS.

Brad.		
No. 3 Handled	per doz.	$0 65
No. 1050 Handled	"	1 40
Patent asst'd, 1 to 4	"	35
Harness.		
Common	per doz.	$1 05
Patent	"	1 00
Peg.		
Shouldered	"	1 60
Patented	"	75
Scratch.		
No. IS. Socket Handled	per doz.	$2 50
No. 344 Goodell-Pratt, list less		35-40%
No. 7 Stanley	per doz.	$2 25

AXES.

First Quality, Single Bitted (unhandled), 3 to 4 lb., per doz. $13 50
Good Quality, Single Bitted, same weight, per doz. 12 50

BALANCES, SPRING.

Universal.
Sight Spring ..... List less 25%
Straight ..... List less 25%

BARS, CROW.

Steel, 4 ft., 10 lb. ..... $ 80
Steel, 5 ft., 18 lb. 1 40
Pinch bars, 5½ ft., 24 lb. 1 60

BARS, WRECKING.

V. & B. No. 12	$0 34
V. & B. No. 24	0 43
V. & B. No. 224	0 57
V. & B. No. 30	0 43
V. & B. No. 330	0 63

BEVEL, TEE.

Stanley's Rosewood handle, new list ..... Nets
Stanley iron handle ..... Nets

BINDING CLOTH.

Zinc 55%
Brass 40%
Brass, plated 60%

BITS.

All Vaughan and Bushnell.

Screw Driver, No. 30, each	$ 27
Screw Driver, No. 1, each	16
Reamer, No. 30, each	41
Reamer, No. 100, each	41
Countersink, No. 12, each	30
Countersink, Nos. 14-15 each	27

BLADES, SAW.

Wood.
Atkins 30-in.

Nos.	6	40	26
	$3 90	$9 45	$5 40

BLOCKS.

Wooden 45%
Patent 45%

BLOW TORCHES (See Firepots).

BOARDS.

Stove.	Per Doz.
26x26, wood lined	$14 45
28x28, " "	16 95
30x30, " "	19 00
26x26, paper lined	8 15
28x28, " "	9 10
30x30, " "	10 80

Wash.
No. 760, Banner Globe (single) ..... per doz. $5 25
No. 652, Banner Globe (single) ..... per doz. 6 75
No. 801, Brass King, per doz. 8 25
No. 860, Single—Plain Pump 6 25

BOLTS.

Carriage, Machine, etc.
Carriage, cut thread, ⅝x6 and sizes smaller and shorter 50%
Carriage sizes, larger and longer than ⅝x6 ..... 40-5%
Machine, ⅝x4 and sizes smaller and shorter .. 50-10%
Machine, sizes larger and longer than ⅝x4 ..... 50%
Stove 75%
Mortise, Door.
Gem, iron 5%
Gem, bronze plated 5%
Barrel.
Cast ..... Net
Wrought ..... "
Wrought, bronzed ..... "
Flush.
Wrought ..... Net
Spring.
Wrought ..... "
Wrought, heavy ..... "
Square.
Wrought ..... "

BOXES.

Mail, No.	2	4	10
Per doz.	$18 00	$23 00	$29 00

Cast Iron.
Per doz. $9 50
Mitre.
Stanley's ..... Net Prices
Stearns, No. 2 .. per doz. $30 00

BRACES, RATCHET.

V. & B. No. 444 8 in.	$4 54
V. & B. No. 222 8 in.	3 89
V. & B. No. 111 8 in.	3 55
V. & B. No. 11 8 in.	3 02

BURRS, RIVETING.

Copper Burrs only 40-5%
Tinners' Iron Burrs only ..... Net

BUTTS.

Steel, antique copper or dull brass finish—case lots—
2½x3½ ... per dozen pairs $3 24
4x4 " " " 4 44
Heavy Bevel steel inside sets, case lots—
..... per dozen sets 7 20
Steel bit keyed front door sets, each 1 20
Wrought brass bit keyed front door sets, each 3 30
Cylinder front door sets, each 7 50

CALIPERS.

Double ..... Net
Inside and Outside ..... "
Wing ..... "

CARRIERS.

Hay.
Diamond, Regular ... each, net
Diamond, Sling ..... " "

CASTERS.

Standard—Ball Bearing.
..... 50 & 10%
Bed 40%
Common Plate.
Brass Wheel 15%
Iron and porcelain wheels, new list 50%
Philadelphia Plate, new list 50%
Martin's 40%

CATCHERS, GRASS.

No. 1608 ..... per doz. $12 25
No. 1658 ..... " " 14 01

CEMENT, FURNACE.

American Seal, 5 lb. cans, net $ 45
" " 10 lb. cans, " 80
" " 25 lb. cans, " 2 00
Asbestos, 5 lb. cans " 45
Pecora ..... per 100 lbs. 7 51

CHAINS.

Proof Coil, ⅜" 100 lbs. .... $ 8 75
Weldless Coil, ... 50-5%
Electric Cow Welded Ties, No. 00, 4½, per doz. 2 85
Safety.
12 yds., per box 75
500 ft. spools, per ft. 02

CHALK, CARPENTERS'.

Blue	per gro.	$2 00
Red	" "	2 00
White	" "	1 80
Common White School Crayon	" "	0 30

CHIMNEY TOPS.

Iwan's Complete Rev. & Vent. 30%
Iwan's Iron Mountings only .. 35%

CHECK, DOOR.

Corbin ..... Net list
Russwin ..... Net list

CHISELS.

Cold.

V. & B. No. 25, ¼ in., each	$0 26
V. & B. No. 25, ⅝ in., each	41

Diamond Point.

V. & B. No. 55, ¼ in.	0 31
V. & B. No. 55, ½ in.	0 48

Firmer Bevelled.
Round Nose.

V. & B. No. 65, ¼ in.	0 29
V. & B. No. 65, ½ in.	0 40

Socket Firmer.
Cape.

V. & B. No. 50, ⅜ in.	0 31
V. & B. No. 50, ¾ in.	0 57

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers ..... List less 35-40%
Yankee, for Yankee Screw Drivers $8 00

CLAMPS.

Adjustable.
Martin's 30%
No. 63, Screw 20%
No. 100, Door (Stearns) doz. $22 00
Cabinet.
Screw 20%
Carpenters'.
Steel Bar .. List price plus 20%
Carriage Makers'.

2½-inch	per doz.	$ 7 00
5 - "	"	14 00
8 - "	"	28 00
12 - "	"	42 00

Hose.
Sherman's brass, ¾-inch per doz. $0 48
Double, brass, ¾-inch, per doz. 1 20
Saw Filers.
No. 1, Adjustable (Stearns) doz. ..... $ 8 75

CLAWS, TACK.

Wood hdl. No. 10.	per doz.	$1 15
Forged steel, wood hdl.	"	2 15
Solid steel	"	3 25
Giant	"	50

CLEVISES.

Malleable ..... 10c lb.

CLIPPERS.

Bolt (Carolus).

No. 0	$2 50
No. 1	3 25
No. 3	4 25

CLIPS.

Axle ..... 65 & 5%
Damper.
Acme, with tail pieces, per doz. $1 25
Non Rivet tail pieces, per doz. 25
Non Rivet Clips 20
Hame 50

COLLARS, STOVE PIPE.

Lacquered.

Inches	5	6	7
Fancy pattern, per doz.	65c	75c	$4 00

COMPASSES.

Carpenters' 15%

COPPERS—Soldering.

Pointed Roofing.

3 lb. and heavier	per lb.	40c
2½ lb.	"	45c
2 lb.	"	48c
1½ lb.	"	55c
1 lb.	"	60c

CORD.

No. 7 Std.	per doz. banks	$10 35
No. 8	" " "	11 95